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Social Tolerance for Drug Use Among Junior High School Students in Taipei, Taiwan.

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SOCIAL TOLERANCE FOR DRUG USE AMONG JUNIOR HIGH SCHOOL STUDENTS IN TAIPEI, TAIWAN

A Dissertation

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in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Sociology

by
San-Yi Li
B.L., Fu Jen Catholic University, 1986
M.A., Western Kentucky University, 1991
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Dedicated to

My Grand Father, Jin-Jy Li

(1904-1992)

My Grand Mother, Ran Chen Li

(1904-1988)

and

My Second Eldest Brother, Chiang-Shi Li

(1961-1987)

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

This study examines the degree of social tolerance for drug use among junior high school students in Taipei, Taiwan, and the relationships between their social tolerance for drug use and their individual, family, and drug environment characteristics. The theories of anomie, socialization, social control, and differential association are used as a guide for these examinations. The data for this study were collected from a sample of 604 students from 16 classes in three grades at five schools using a self-administrated questionnaire designed for this purpose. These classes were randomly selected from all 85 junior high schools which were stratified by public and private, school size, and administrative districts.

The results reveal that students are more likely to tolerate their friends' use of drugs than their own use of drugs. Among individual influences, third grade students and students who had infrequent interaction with major teachers were more likely to tolerate drug use, controlling for all of the individual, family, and drug environment characteristics. Family influences had almost no effect on the social tolerance for drug use. Among drug environment influences, students who had classmates and friends who encouraged them to use drugs were most tolerant of use of drugs.

This study can be the beginning of similar studies conducted annually for tracking the trends of increasing social tolerance for drug use. These studies will contribute to our understanding of juveniles' attitudes toward drugs and help us to predict the change of drug use rates. Some of the variables within individual characteristics and drug environment show more important effects on social tolerance of drug use than other variables. This suggests that socialization, social control, and differential association theories offer a good explanation for drug attitudes.

CHAPTER 1

INTRODUCTION

Juvenile involvement in drug and narcotics use has become an increasingly serious social problem in Taiwan since the beginning of the 1990s. The legal definition of a juvenile in Taiwan is a person whose age is between twelve and seventeen (Lin, 1993). According to official reports, the total numbers of juvenile drug and narcotics arrests in Taiwan were 789 in 1990; 7,595 in 1991; 11,111 in 1992; 10,149 in 1993; and 5,134 in 1994 (see Table 1.1). Juvenile drug and narcotics arrests were recorded as violations of one of two laws, the first controlling the distribution of legal narcotics and the second controlling illegal drug use. In that same period, juvenile populations (between the ages of 12 and 17) were 2,268,912 in 1990; 2,320,982 in 1991; 2,366,221 in 1992; 2,407,072 in 1993; and 2,418,088 in 1994 (see Table 1.1). The juvenile drug and narcotics arrest rates in these four years were 35 (per 100,000 population) in 1990, to 327 in 1991, to 470 in 1992, and to 422 in 1994. The population totals of Taiwan for these four years were: 20,233,422 in 1990; 20,458,128 in 1991; 20,654,673 in 1992; and 20,995,416 in 1993 (see Table 1.1). By the end of 1993, the population of Taiwan was 20,995,416, and the national population growth rate was 16,000 per month (*Central Daily News*, 1994). The estimated

Table 1.1 Total Number of Juvenile Drug and Narcotics Arrests, Drug Use Arrest Rates, and Populations in Taiwan, 1990-95

Year	Number of Drug Use Arrests	Drug Use Arrest Rate (Per 100,000)	Juvenile* Population	Taiwanese Population
1990	789	35	2,268,912	20,233,422
1991	7,595	327	2,320,982	20,458,128
1992	11,111	470	2,366,221	20,654,673
1993	10,149	422	2,407,072	20,995,416
1994	5,134	212**	2,418,088**	21,107,416**
1995	2,625***	NA	NA	21,300,000**

* Taiwanese juveniles are between the age of 12 and 17.
** Estimated numbers.
*** January to August statistics.
NA: Not available.
Sources: Lin (1993); *Central Daily News* (1995); *Central Daily News* (1994); *United Daily News* (1994); Statistic Department, Ministry of Justice, Republic of China (1995); Crime Research Center, Ministry of Justice, Republic of China (1995)

population of Taiwan in mid-1995 was 21,300,000 (see Table 1.1) (*Central Daily News*, 1995).

The Minister of Justice of Taiwan estimated that there were at least 200,000 drug users in Taiwan in mid-1994, and police authorities estimated that juvenile drug users made up about one-tenth of that number, or about 20,000 juvenile drug users (*United Daily News*, 1994). Based on these estimates of juvenile drug users and juvenile population of 1994, the juvenile drug use rate in 1994 was estimated at

more than 827 per 100,000 population. This number is far greater than in previous years.

The above numbers of juvenile drug and narcotics arrests and estimated number of juvenile drug users indicate that drug law enforcement was strengthened. In the meantime they also show that the actual number of juvenile drug users increased significantly in Taiwan between 1990 and 1995.

1.1. Statement of the Problem

The attitudes of Taiwanese toward drug use are changing from the more conservative perspective of the past. Common wisdom held that only violent gangsters and prostitutes were involved in drug use prior to 1990, the year drug use became more popular in Taiwan. High school students now commonly share amphetamines (also known as "ice," "am," "prince am," "su-bee," or "salt") (Lin, 1992) and other controlled substances with their classmates and friends (*United Daily News*, 1994). This significant increase in juvenile drug and narcotics use is indicative of the changing attitudes of Taiwanese juveniles toward drug use. This increase in drug use may indicate that Taiwanese juveniles have become more tolerant of drug use, which, in turn, may lead to a higher rate of drug use. Specifically, the degree of social tolerance for drug use among juveniles is assumed in this study to be a factor contributing to an increase in drug use in Taiwan.

The dramatic increase in drug use since 1990 in Taiwan (Shau, 1993) may indicate that more social tolerance for drug use exists among certain social groups. In this study, "social tolerance" is defined as the degree to which an illegal or immoral behavior is accepted or not rejected by individuals or members of a given group. Durant and Chan (1980) indicated that the concept of social tolerance was helpful when studying the reactions of an individual or group to criminal or deviant behavior. In the study of social tolerance for crime and deviance, they defined "social tolerance" as "the degree to which a particular kind of socially or legally defined deviance is permitted to proceed within a given social entity without active intervention of group members or outsiders as individuals or as a group to oppose, suppress, eliminate, or discourage the misconduct" (pp. 261-2). This definition suggests that some people or groups have different degrees of tolerance for a particular type of deviance. This definition of "social tolerance" is reflected in past studies of deviant behavior. For example, Jessor (1968) defined "tolerance of deviation" as the degree of a deviant behavior accepted by people. Similarly, Boswell (1980), in a study of homosexuality in Western Europe, defined "social tolerance" as "public acceptance of personal variation or idiosyncrasy in matters of appearance, life-style, personality, or belief" (p. 3). Other studies have used similar concepts

under the rubric of societal reaction (Kitsuse, 1962). Merton (1959) developed a typology of modes of responses of members of a group to the social environment. Merton identified five modes of response: "conformity" exists when people accept the cultural goals and achieve them by institutionalized means; "innovation" exists when people accept cultural goals but reject the institutionalized means; "ritualism" exists when people do not accept cultural goals but they accept the institutionalized means; "retreatism" refers to the rejection of both cultural goals and institutionalized means; and "rebellion" refers to the rejection of both cultural goals and institutionalized means and the substitution of one's own goals and means. Finally, White (1975) examined the idea of public responses to crime. He found that responses to punishment for criminals is based on the seriousness of the criminal behavior. In summary, all of the aforementioned studies suggest that reactions to deviant behavior vary with a number of factors, including type and seriousness of the act, normative perceptions, personality, lifestyles, and nature of the social environment.

The purpose of this study is to examine the factors that influence the degree of social tolerance for drug use among junior high school students in Taipei, Taiwan. "Drug use" is defined as the usage of amphetamines, heroin (also known as "white powder" or "black carbon") (Lin, 1992), or

marijuana (also known as "reefer," "mugglers," "tea," "gauge," "Mary Jane," or "weed," "grass," or "pot") (Akers, 1992) for social or non-medical purposes. Social tolerance for these three types of illicit drugs will be studied, with the assumption that amphetamines, heroin, and marijuana will vary in their degree of social tolerance. The major thesis of this study is that the degree of tolerance for a given drug among junior high school students in Taipei, Taiwan, will vary by the following factors: individual characteristics (grade in school, gender, ethnic group, academic achievement, and interaction with the major teacher); family influences (living arrangement, mothers' religious affiliation, allowance, family income, and fathers' education); and drug environment (relatives', classmates', and friends' drug experience and classmates' and friends encouraged drug use). Finally, it is assumed in this study that social tolerance contributes to increased levels of drug use by juveniles in Taipei, Taiwan.

1.2. Significance of the Study

This study tests hypotheses derived from elements of several theories, including anomie, differential association, social control, and socialization. Thus, this study contributes to the development and expansion of the theory of anomie, by assessing the importance of several groups of factors (individual characteristics, family

influences, and drug environment) in explaining the level of social tolerance for drug use. In other words, this study makes an effort to link social tolerance as an element of interaction theory with the theory of anomie. Accordingly, this study will illustrate the theoretical value of the concept of social tolerance in explaining drug use as a form of deviant behavior. This study supplements past studies that have seldom used the concept of social tolerance in explaining drug use behavior. The concept of social tolerance is used in this study to explain drug use as a form of deviant behavior. This study tests the social tolerance theoretical model outside of the United States, which offers the opportunity for a future cross-culture comparison of the concept of social tolerance for deviant behavior. Another theoretical significance of this study is that examining the degree of social tolerance for drug use among junior high school students will help sociologists understand the relationship between social tolerance for particular types of drug use and specific individual, family, and drug environment characteristics among juveniles. Thus, this study will also contribute to our understanding of how some social factors influence certain groups in the society in terms of degree of tolerance for drug use.

This study is the first research to examine the issue of social tolerance for drug use in Taiwan. Thus, this

study will yield results that will help to determine the applicability of the concept of social tolerance in studying other cultures besides the United States. In addition, this study will produce findings that can serve as a guide for other studies of different groups, including school groups, college students, gangs, and others.

The practical significance of this study is that the results can be used by social agencies in developing policies aimed at the prevention and treatment of drug abuse among juveniles. This study will also provide results that can help social agencies better understand how individual, family, and drug environment factors contribute to juvenile attitudes toward drug use, and thus contribute to the planning of drug prevention programs and policies for junior high school students.

CHAPTER 2

REVIEW OF LITERATURE RELEVANT TO SOCIAL TOLERANCE AND DRUG USE STUDIES

The degree of social tolerance and the attitudes toward drug use among junior high school students in Taipei, Taiwan, are the central elements of this study. Durant and Chan (1980) argued that social tolerance is a helpful theoretical concept for studying individual or societal responses to deviant behavior. Thus, the first part of this section will focus on previous studies on the topic of social tolerance for deviant behavior. The second part of this section will review the studies which were recently conducted to explain the illegal drug problem. Social tolerance may be viewed as falling under the rubric of societal reaction theory, which includes certain elements of labeling theory and anomie theory. Thus, this review of the literature will also include relevant studies pertaining to labeling theory and anomie theory.

2.1. Previous Social Tolerance Studies

Several studies have explored relationships between social tolerance and deviance. In an early study, Van Vechten's (1940) critique of Sutherland's theory on white-collar crime suggested that the white-collar class received different tolerance limits from the community than did other social classes. He argued that the community's tolerance limits were changeable along with the degree of

social disorganization. Van Vechten's contribution to this field of study was in connecting the concepts of tolerance and social disorganization. Van Vechten also recognized that social tolerance may be used to study the degree of tolerance toward certain crimes, and that tolerance limits of individuals may vary by racial, economic, and occupational groups.

Schur (1971) pointed out that the process of definition plays an important role in the labeling approach, which focuses on the social-psychological aspects of deviant identity at the organizational and societal levels. He emphasized that labeling theory is not only concerned with the deviant behavior reflecting wrong acts or norms but also the patterns and processes of social definition resulting from the deviant behavior. He pointed out that the central principle of the labeling orientation is that the processes of social definition are always involved in the issue of deviance and social control.

Glaser (1971) noted that tolerance of different behaviors depends on the division of labor in a society. The larger and more complex societies are more likely to have higher tolerance of behavioral diversity than do smaller and more simple societies.

Becker (1973) commented that social groups make rules to identify whose infractions are considered deviant and to label those people who do not obey social rules as

outsiders. Social tolerance is similar to labeling theory in that it assumes that certain groups have their own normative criteria for tolerating or not tolerating illegal or immoral behavior.

Goode (1978) employed the interactionist approach to explain different forms of deviant behavior, such as marijuana use and alcoholism. He found that marijuana users were more tolerant of deviant behavior than non-users.

The concept of social tolerance has contributed to the development of social theories which examine societal reactions or community or individual responses to deviant behavior, abnormal life-styles, strange personalities, or extreme beliefs (Durant and Chan, 1980). The study of social tolerance and similar concepts has been conducted using different research subjects, such as criminals, victims, or social control agents (Durant and Chan, 1980). Labeling theory and societal reaction perspectives of deviance, as Durant and Chan (1980) pointed out, were the most important sources of the foundation of the concept of social tolerance. The societal reaction perspective was the major theory for their research. Durant and Chan (1980) concluded that people were more tolerant of victimless crimes, but less tolerant of violent crimes.

Orru (1987) pointed out that societies and their members will experience increased anomie and decreased

respect for old reliable laws when they are in a period of rapid social change. Thus, the rapid change in juvenile drug use rates in Taiwan may create a state of anomie among residents in society, such that the traditional value which previously controlled drug use may no longer be effective.

According to labeling theory, societal reaction is the central part of the field of deviance (Lauer, 1992). Labeling theory states that a behavior is labeled as deviant by relatively more powerful groups or by higher socioeconomic classes, which suggests that some groups are more tolerant of certain types of deviant behavior than others.

2.2. Recent Juvenile Drug Use Studies

Numerous drug use studies have been done in the United States. One of the large surveys of drug use and related attitudes among American high school seniors was conducted by Johnston, O'Malley, and Bachman (1993). Three sets of attitudes and beliefs related to drug use were chosen as special concerns by these researchers. In the belief questions, they asked students how harmful various kinds of drugs were to individuals using them. In the attitude questions, they asked students about their degree of approval of various kinds of drug use. In the legalization of drugs question, they ascertained students' attitudes about various types of legal prohibition. Also, Johnston et al. asked the students' parents and friends the same

questions in order to look at the relationships between students' attitudes and beliefs about drugs and their parents' and friends' attitudes and beliefs. Their data showed that most students think using drugs is very risky behavior. Many students disapprove of the use of various drugs.

Kandel (1990) used the "National Longitudinal Survey of Young Adults, a National Representative Sample of Young Americans," to explore the relationships between adolescents' sexual behavior and drug involvement. The study found that the more adolescents were involved in drug use, the greater the probability they had sex at an earlier age. This implies that the drug environment of youths could influence their behaviors and their attitudes.

Another study done by Kandel (1990) examined the relationship between parents who used drugs and their problem with child control. The study showed that mothers who were more deeply involved in drugs had more control problems with their children. This suggests that parents' drug experiences and attitudes influence their abilities to parent their children.

Bauman and Fleweling (1990) conducted a study of 2,102 adolescents in ten southeastern cities to examine the relationship between family structure and initial drug use. They found that children from intact families were significantly less likely to have ever tried to use drugs.

This relationship still existed after controlling for sex, race, age, and mothers' education.

McCarthy and Anglin (1990) examined 756 male heroin users, exploring the relationships between selected family background characteristics and the onset of emancipation and drug use. Socioeconomic status, family drug use, and parental absence were some of the major factors in their study. They found that parental absence had a negative effect on respondents' first use of drugs.

Kaplan and Liu (1994) tested 2,805 cases in seventh grade, eighth grade, and young adulthood to examine the relationships between drug use and dropping out of school. In this study, gender, father's education, and race/ethnicity were the major control variables. Their study showed that drug use had a significant influence on dropping out of school when the three variables were controlled.

Feucht, Stephens, and Walker (1994) conducted a study comparing the results of the prevalence of cocaine use from three detection methods: self-report of drug use, urinalysis, and hair assay, among eighty-eight juvenile arrestees in Cleveland. Their results showed that self-reports of drug use extremely underestimated the prevalence of cocaine use in these subjects versus the urinalysis and hair assay methods.

Knipe (1995) pointed out that youth, male gender, and poverty were most often associated characteristics of users of some drugs in America. The dominant class in society usually viewed drug use as deviant behavior, while drug users thought this was a way of living.

As the cases of illegal drug use among juveniles increased dramatically in Taiwan in the beginning of the 1990s, a number of studies dealing with this serious social problem were conducted. The objects of these studies included students, juvenile criminals, or both, for the purpose of making comparisons. These studies focused mostly on illegal drug use among junior high school students, ages 12 to 14; senior high school students, ages 15 to 17; and college students. These studies also contained many valuable experimental and theoretical insights on juvenile illegal drug use. The following is a review of the relevant studies on juvenile drug use in Taiwan.

With a sample size of 3,548 students from a junior high school in the Kouhsiung area in south Taiwan, Ko, Su, Lan, Yen, Wu, and Lee (1991) studied the risk factors correlated with use of amphetamines among junior high school students. They found that males, students who did not live with both parents, students with amphetamine-user friends, betel nut chewers, and students with positive attitudes are more likely to be amphetamine-users.

According to their study, the prevalence of amphetamine abuse in the school was about 2.7 percent, with males 1.4 percent and females 1.3 percent. These amphetamine-users started to use this drug around the age of 13. The major reason they used amphetamines was curiosity, given by 65.4 percent of the students. The major source of amphetamines for these students was their friends, and 85.2 percent of them reported obtaining amphetamines this way.

Lee (1993) applied Aker's social learning theory and Hirschi's social bonding theory to study the factors that influenced Taiwanese adolescents' cigarette smoking, alcohol drinking, and illicit drug using behavior. The largest portion of the sample of her study was 979 students from thirteen junior high schools in Taipei, Taiwan. She found that for many of the individuals, social learning, and social bonding variables can be used to predict the responding students' cigarette smoking, alcohol drinking, and drug use behavior. In particular, the social learning variables had the strongest prediction power. In her study, individual variables included gender, school, grade at school, academic achievement, parents' educational attainment, and parents' marital status. Social learning variables consisted of imitation, definitions, differential association, and differential reinforcement. Social bonding variables included attachment to important persons, commitment and involvement in school, and belief of social

norms and traditional values. Finally, the results of the study showed that 0.7-3.7 percent of the student respondents currently used amphetamines. The students had received most of the drugs they used from their classmates and friends. Also, the larger the number of students' peers who used drugs, the higher the risk that the students were likely to use drugs.

Zhou (1994) conducted a survey to study the prevalence and risk factors of drug abuse among adolescents at schools in Taipei City. She found that the prevalence of drug abuse among 906 students from nine junior high schools in her sample was 0.56 percent, slightly lower than the result of Lee's (1993) study, 0.7 percent. The prevalence of drug abuse among male students was 11.5 times that of female students (male 1.84 percent and female 0.16 percent). The prevalence drug abuse among students of single parent families among drug abuse students was 4.5 times that of students who did not use illegal drugs (29.1 percent of the former and 6.4 percent of the latter). Finally, Zhou found that the major reason that students use illegal drugs was curiosity, the same as Ko, Su, Lan, Yen, Wu, and Lee's (1991) study.

In a study exploring social factors that influence teenagers to be drug abusers, Ross (1995) employed theories of structural pressure and stress, social control, subculture, and structural differentiation to examine the

teenage drug abuse problem in Taiwan. The study included two samples: one was a research sample made up of 301 teenagers who had used drugs from three reformatories as the research sample; and the other sample was a control group composed of 318 students who had not used drugs from three senior high schools. The percentage of single-parent families that the research sample teenagers came from was almost 30% greater than the percentage of the control groups. More than 78% of the teenaged drug users had friends who were also drug users. Finally, Ross suggested that the major reason that a teenager did not take drugs is he or she came from an intact and healthy family. If a teenager came from a divorced or single-parent family, his or her drug behavior was more likely to be influenced by his or her teacher or by peer groups, especially gangs.

CHAPTER 3

THEORETICAL ORIENTATION AND HYPOTHESES

The theoretical framework for this study is derived from the theories of anomie, socialization, social control, and differential association. The theory of anomie is employed to examine the source of change of the concept of social tolerance. The socialization, social control, and differential association theories are used to explore the relationships between students' individual characteristics, family influences, and drug environment and their social tolerance for use of drugs.

Durkheim, one of the earliest sociologists, who developed the concept of anomie, made the argument that as societies make the transition from mechanical to organic solidarity, a large number of different behaviors will be tolerated (Vold and Bernard, 1986). Durkheim suggested that anomie is a pathological state in a more organic society in which the laws lack the ability to regulate the relationships between the parts of the society (Vold and Bernard, 1986). Based on this theory of anomie, we can assume that there is a linkage between social tolerance for different behaviors and the state of anomie in the society. Accordingly, it is reasonable to believe that the state of anomie in society offers some conditions for its members to become more tolerant of deviant behavior. The theory of

anomie, therefore, is a relevant theoretical framework for the study of social tolerance for deviant behavior.

Clinard (1964) pointed out that Merton believed that deviant behavior is an outcome of anomie. Merton (1962) illustrated how culturally defined goals and socially acceptable modes of achieving these goals exercise an explicit strain upon some particular members in the society which lead them to commit deviant behavior. From the inspiration of Merton's revision of Durkheim's theory of anomie, this study assumes that demographic, family, school, and peer factors may have an important influence on the level of tolerance for drug use among different groups in society. Thus, social tolerance for deviant behavior, such as drug use, is viewed as a sign of normlessness among certain persons in society. Therefore, the increase of social tolerance for drug use is considered in this study as an indicator of anomie.

3.1. The History of the Theory of Anomie

Emile Durkheim and Robert K. Merton are the best known sociologists who formulated and developed the concept of anomie and employed it as a theoretical tool for their studies of social deviation (Clinard, 1964). Clinard (1964) pointed out that Durkheim first introduced the term anomie in his work, *The Division of Labor in Society*, published in 1893. The concept of anomie was also important in Durkheim's later work, *Suicide*, in which

anomie was used as a reason for suicide (Clinard, 1964). De Grazia employed Durkheim's concept of anomie to explain most of the social problems in modern society (Clinard, 1964; Orru, 1987).

In the essay "Social Structure and Anomie," Merton (1962) used the concept of anomie to explain the relationships between social and cultural factors and deviant behavior. The essay was first issued in 1938 and was further revised nearly twenty years later. Merton argued that different ethnic or racial groups, social classes, and other social characteristics exhibit various rates of deviant behavior in society. Accordingly, the degree of social tolerance for deviant behavior can be assumed to vary by ethnic or racial groups, social classes, and other group characteristics.

In a study of delinquency in Baltimore, Lander (1954) named an "anomic" factor as the result of a factor analysis and correlation analysis. The anomic factor included the percentage of owner-occupied homes, the percentage of nonwhite population in the local area, and the delinquency rate.

Clinard (1964) argued that Durkheim used the term "anomie" to refer to qualities of the social structure or groups. He also indicated that Merton's theory of anomie refers to the qualities of the culture. He argued that

"anomia" or "anomy" refers to the individual or psychological aspects of anomie.

3.2. The Meaning of Anomie

One of the earlier attempts to define "anomie" was made by Durkheim (1984). Durkheim argued that a state of anomie refers to the situation when the relationships between different parts of society are not regulated. Because of anomie the solidarity is unable to be produced by the division of labor in society (Durkheim, 1984). In his famous work, *Suicide*, Durkheim (1951) equated "anomy" with "the state of de-regulation." Clinard (1964) pointed out that Durkheim formulated the term "anomic suicide" for the type of suicide that results from the breakdown of controls over a person's desire in a society and the collapse of social norms resulting from rapid social change. That is, anomie can refer to the breakdown of social controls over a person's desire, and of social norms and values in the society. Durkheim proposed several explanations for the long period of time in which French society experienced the state of anomie (Vold and Bernard, 1986). First, people, especially workers and employers during the French industrial revolution, were not influenced by religion. Second, traditional occupational societies had disappeared and were no longer able to regulate their members' behavior and relationships. Third,

government practiced a noninterference policy in the country.

Merton (1962) suggested that anomie is a disequilibrium between social goals and norms within a society. Merton defined "anomie" as "a breakdown in the cultural structure, occurring particularly when there is an acute disjunction between cultural norms and goals and the social structured capacities of members of the group to act in accord with them."

De Grazia (1948) extended Durkheim's concept of anomie to the study of anomie in the political community. De Grazia defined "anomie" as "the disintegrated state of a society that possesses no body of common values or morals which effectively govern conduct." Lander (1954) applied the term anomie to describe some areas in Baltimore. He defined an "anomic area" as an area characterized by "normlessness, the breakdown or weakening of the regulatory structure of society." Anomie, Clinard (1964) suggested, has two meanings: one refers to a state of "normlessness" in a society, and the other refers to the inability of the social structure to offer adequate opportunities for part of its members to achieve their social goals.

Several psychologists have defined "anomy" at the individual level. For example, MacIver (1950) defined "anomy" as "a state of mind in which the individual's sense of social cohesion--the mainspring of his morale--is broken

or fatally weakened." Riesman, Glazer, and Denney (1956) defined the "anomic type" as a "maladjusted" person.

Orru (1987) pointed out that the etymology of anomie is "the absence of laws or norms." Orru argued that this definition is ambiguous because it does not specify what these laws, norms, or customs are.

In summary, the macro level of the meaning of anomie suggests that anomie is a society in a state of normlessness and lack of regulation for its members. In the period of anomie, the members of the society tend to have more tolerance of various things and behaviors, such as crime and deviant behavior. The micro level of the meaning of anomie implies that a person is weak or lacks a sense of morals or desire for social conformity when he or she is anomic. This weakness or lack of a sense of moral or social regulations suggests a feeling of tolerance for social disorder. When a group of people experience an anomic condition, the members of that group become more tolerant of deviant behavior. Therefore, this study assumes that religion, school, family, peer group, and government policy may influence the state of anomie and consequently the degree of social tolerance for deviant behavior.

3.3. Socialization, Social Control, and Differential Association Theories and the Concept of Social Tolerance

This study assumes that social tolerance is one of the results of the socialization of people. Socialization is viewed here as one of the long-term effects of a person's attitudes and values (Lauer, 1992). The family, school, peer groups, mass media, and the state are the most important agents of socialization in modern industrial societies (Macionis, 1991; Schaefer and Lamm, 1992). Most junior high school students in Taipei, Taiwan, are exposed to these agents of socialization from their early childhood. They are socialized into these attitudes toward social tolerance for drug use by these agents in one way or the other. Mead (1964) created the term "significant others" to emphasize that some persons are very important to individuals during the development of the self. In other words, parents, relatives, peers, and teachers can initially influence students' attitudes toward social tolerance for drug use. Both gender and good student roles are also important agents of socialization in many societies, including Taiwan. Both females and good students in Taiwan usually are more socialized to be obedient to traditional moral values and attitudes than are males and bad students. "Good students" usually refers to excellent academic achievers. However, it is important to

note that the effects of socialization change as we age; generally, the older the student and the higher the grade level in school, the lesser the effects of the socialization of traditional values and attitudes (Lauer, 1992; Schaefer and Lamm, 1992).

Social control theories argue that people commit delinquency because they lack social control or social ties and freedom of behavior. Using social control theory as a guide, this study assumes that the degree of students' social tolerance is dependent on the strength of the social control of the students. Reiss (1951), one of the early social control theorists, argued that deviant juveniles experienced failure of their own "personal controls" to control their needs and behaviors to the expectations of societal norms and values. These juveniles also skipped classes often and deviated from the schools' controls. Besides this emphasis on the school as an important institution of social control, another early control theorist, Nye (1958), argued that the influence of the family is more important than the school. Nye's concept of social control included such things as rules and punishments applied to people, the function of self-control, and the influences of role models (Vold and Bernard, 1986).

Hirschi's (1969) social control theory included four major elements: attachment to parents, the school, and

peers; commitment to conventional lines of action; involvement in conventional activities; and belief. Hirschi argued that the stronger a person's attachment to parents, teachers, and peers, the more likely these persons are to be taken into account when the individual is thinking of a deviant behavior. Hirschi pointed out that social control is built into the organization of society to regulate people effectively. In order to prevent jeopardizing of the opportunities for success in society, a person needs to value the rewards that society offers. In other words, the person has to realize what the stakes are in conformity and make a commitment to achieve these conventional goals. Hirschi also pointed out that one of the most important of these four elements is the involvement in conventional activities. When children are doing sports, homework, and other conventional activities, they have no time to commit deviant behaviors. Finally, Hirschi claimed that belief in values relative to law and the legal system also prevent a person from committing deviant behaviors.

Differential association theories argue that criminal behavior is like other behaviors which are the results of the learning process. This study assumes that students' social tolerance for drug use is also learned from other persons through different learning processes. Sutherland's (1993) differential association theory argued that some

people identify with persons who define the legal codes as rules to be observed, while others live with persons whose definitions are more favorable to the violation of the legal codes. Those persons commit criminal behaviors because their definitions in favor of violation of the law outweigh definitions unfavorable to violation of the law. In other words, people learn the definitions of behaviors from other people; they then define as favorable or unfavorable certain behaviors, and react to them. Therefore, Sutherland's differential association theory is useful in examining students' definitions of drug use, as it affects their social tolerance for drug use.

In summary, the family, school, peer groups, mass media, and the state are important agents of socialization which generate people's values and attitudes. Social control theories offer many major elements of social bonds that help people decide not to commit deviant behaviors. In addition, differential association theory provides the understanding that people learn to define favorable or unfavorable behaviors from the other people who surround them.

3.4. Conceptual Model

Based on the review of literature, the conceptual model for this study assumes that three independent groups of influences affect social tolerance for drug use. The dependent measures include two direct measurements of

social tolerance for drug use: (A) social tolerance for use of drugs by their friends and (B) social tolerance for personal use of drugs, and two alternative measurements of social tolerance for drug use: (C) attitudes toward legalization of use of drugs and (D) thoughts about using drugs, among junior high school students in Taipei, Taiwan. The three independent groups of influences are (1) individual characteristics, (2) family influences, and (3) drug environment. These relationships between independent groups of influences and dependent variables are shown in Figure 3.1.

As shown in Figure 3.1, the model includes three sets of relationships. First, individual characteristics of junior high school students are assumed to influence their social tolerance for drug use, attitudes toward legalization of use of drugs, and thoughts about using drugs. Second, family influences of junior high school students are assumed to influence their social tolerance for drug use, attitudes toward legalization of use of drugs, and thoughts about using drugs. Third, the drug environment of junior high school students is assumed to influence their social tolerance for drug use, attitudes toward legalization of use of drugs, and thoughts about using drugs. The above relationships, which comprise the conceptual model, guide the development and testing of the

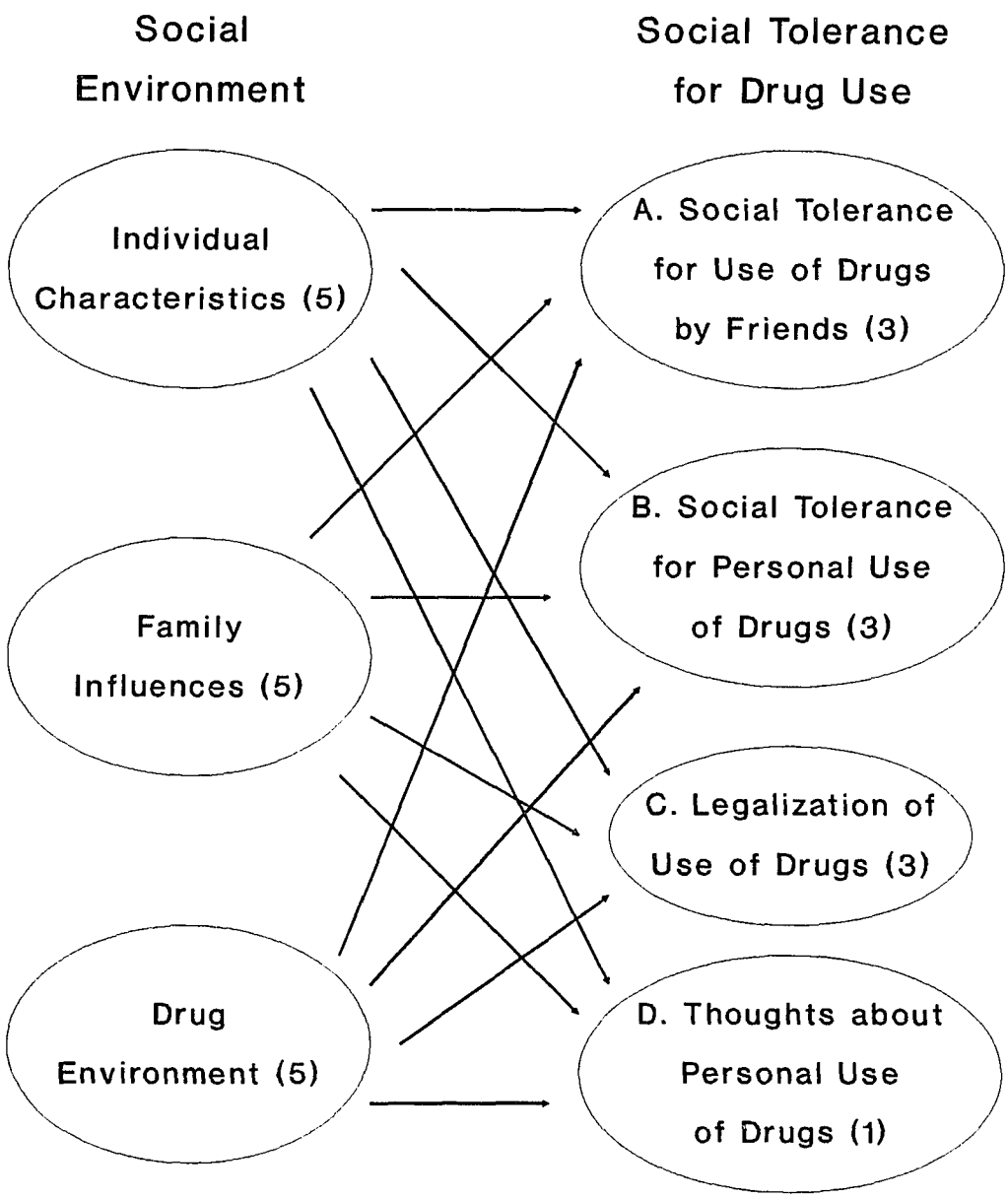

Figure 3.1 A Conceptual Model of Social Tolerance for Drug Use

Note: Numbers in parentheses are numbers of variables in each of the dimensions.

hypotheses on social tolerance for drug use among junior high school students in Taipei, Taiwan.

In summary, individual characteristics, family influences, and drug environment are all part of the students' social environment, which influences their social tolerance for drug use. Students' social tolerances for drug use are measured by the direct measurements, which are their social tolerance for drug use, and the alternative measurements, which are their attitudes toward legalization of the use of drugs, and their thoughts about using drugs.

3.5. Hypotheses and Rationales

Three types of illegal drugs -- amphetamines, heroin, and marijuana -- are assumed to have achieved various degrees of social tolerance among junior high school students in Taipei, Taiwan. Also, usage of these illegal drugs by friends and self is assumed to result in different degrees of social tolerance. Therefore, social tolerance for drug use includes six variables: social tolerance for friends' use of amphetamines; social tolerance for friends' use of heroin; social tolerance for friends' use of marijuana; social tolerance for self use of amphetamines; social tolerance for self use of heroin; and social tolerance for self use of marijuana.

Three groups of influences: individual characteristics, family influences, and drug environment, and their relationships to social tolerance for drug use

are identified in this section. The individual characteristics in this study include five variables: grade in school, gender, ethnic group, academic achievement, and interaction with major teacher. The family variables also consist of five indicators: living with (or apart from) parents, mother's religion, allowance, family income, and father's education. The drug environment influences also include five variables: drug usage among relatives, drug usage among classmates, drug usage among friends, having classmates who encourage drug use, and having friends who encourage drug use.

The following sections list each of the hypotheses of this study and its rationale. In each of the following hypotheses, the terms "illegal drug use" and "illegal drugs" include "amphetamines, heroin, and marijuana" respectively (except thought about using drugs). The variable "social tolerance for drug use" consists of (A) social tolerance for use of drugs by friends, (B) social tolerance for personal use of drugs, (C) attitudes toward legalization of use of drugs, and (D) thoughts about using drugs. The theories (in parentheses after each hypothesis) are those which apply to the relationships among these variables as stated in the hypotheses.

3.5.1. Individual Characteristic Hypotheses

Hypothesis 1 (Socialization Theory): Students in higher grades will have a higher degree of social tolerance

for illegal drug use (amphetamines, heroin, and marijuana, respectively) than students in lower grades. Higher grades also indicate older ages. Taiwan crime statistics show that older juveniles have higher drug use than younger juveniles (Lin, 1993). Age has been found to have a strong correlation with crime in the literature (Conklin, 1992). Also, the results of Zhou's (1994) study showed that students in higher grades had higher rates of drug use. These higher rates of drug use among students in higher grades suggest that they might have higher degrees of social tolerance for illegal drug use than students in lower grades.

Hypothesis 2 (Socialization Theory): Females will have a lower degree of social tolerance for illegal drug use than males. Durant and Chan's (1980) study showed that males and females showed different levels of tolerance of property crimes and victimless crimes. The study indicated that females have lower social tolerance of property crimes and victimless crimes. In other words, gender is an important indicator to consider when looking at the problem of social tolerance of deviance.

Hypothesis 3 (Socialization Theory): Min-Nun students will have a higher degree of social tolerance for illegal drug use than students of other ethnic groups. There are no race differences in the Taiwan population, but the ethnic group variable operates similarly to a race

variable. Some studies of drug abuse behavior among adolescents in Taiwan included ethnic group variables (Zhou, 1994). Zhou found that Min-Nun students represented the largest number of students who were drug abusers. Durant and Chan (1980) indicated that whites were more tolerant of victimless crimes than blacks.

Hypothesis 4 (Socialization Theory): Students with higher levels of academic achievement will have a lower degree of social tolerance for illegal drug use than students with lower level of academic achievement. The studies of Lee (1993), Wu (1993), and Zhou (1994) were concerned with the influences of students' academic achievement on students' drug use. These studies showed that students who spent more time on their academic work and who were more concerned with academic achievement were less likely to use illegal drugs. These students also had a better chance to reach a higher level of academic achievement. Thus, we predict that students with a high level of academic achievement will have a lower degree of social tolerance for drug use.

Hypothesis 5 (Social Control Theory--Attachment): Students with more interaction with their major teachers will have a lower degree of social tolerance for illegal drug use than students with fewer interactions with their major teachers. Lee (1993) argued that teachers were important role models to students in Chinese culture.

Students imitated their teachers by not using drugs and learned their teachers' attitudes toward drug use through interactions at school. Students with more interaction with their teachers increased possibilities of learning anti-drug attitudes and thus would be less tolerant of drug use.

3.5.2. Family Influence Hypotheses

Hypothesis 6 (Social Control Theory--Attachment): Students living away from parents will have a higher degree of social tolerance for illegal drug use than students living with one or both parents. Students living with their parents allow interaction and transmission between generations to continue. Parents can pass their attitudes toward drug use to students when they are living together. Zhou (1994) found that the number of students from single-parent families who used illegal drugs was 4.5 times that of students whose families did not use illegal drugs.

Hypothesis 7 (Social Control Theory--Attachment): Students whose mothers have no religious belief will have a higher degree of social tolerance for illegal drug use than students whose mothers have a belief in a religion. The doctrines of most religions teach people not to commit deviant behavior, including illegal drug use. Students with religious mothers are more likely to have the attitude not to use illegal drugs. Thus, students with religious mothers are more likely not to tolerate illegal drug use

than those whose mothers are without belief in a religion. Conklin (1975) pointed out that tolerance for crime may be transmitted from parents to children. In other words, parents' background and attitudes toward deviance may influence their children's social tolerance for drug use from generation to generation. That is, mothers' belief in a religion can influence students' attitudes toward illegal drug use. Thus, students whose mothers have a religious belief will have a lower degree of social tolerance for illegal drug use.

Hypothesis 8 (Anomie Theory): Students with a larger weekly allowance will have a higher degree of social tolerance for illegal drug use than students with a smaller weekly allowance. Students who have more allowance are assumed to have more power and freedom to do different things. If they have more money to consume illegal drugs, their opportunities of getting involved in drug use will increase. Therefore, they will be more tolerant of drug use.

Hypothesis 9 (Socialization Theory): Students who have higher family incomes will have a lower degree of social tolerance for illegal drug use than students who have lower family incomes. Students with higher family incomes are more likely to be in higher social class families. Higher social classes usually have lower drug use rates. Thus, students from these families have a lower degree of social

tolerance for illegal drug use than those who have lower family income.

Hypothesis 10 (Socialization Theory): Students who have better educated fathers will have a lower degree of social tolerance for illegal drug use than students who have less educated fathers. The results of Lee's (1993) study showed that the relationship between whether students used or did not use illegal drugs and fathers' educational levels was not significantly different. In spite of this finding, better education is generally associated with higher class. This is the reason I expect that fathers' educational level will influence their children's attitudes toward illegal drug use. I assume that students who have better educated fathers will have a lower degree of social tolerance for illegal drug use than students who have less educated fathers.

3.5.3. Drug Environment Hypotheses

Hypothesis 11 (Differential Association Theory): Students who have relatives who use drugs will have a higher degree of social tolerance for illegal drug use than students who have no relatives who use drugs. According to differential association theory, students who have relatives who use drugs gain more chances to learn from their relatives' drug experiences, attitudes, and definitions. Also, the results of Zhou's (1994) study showed that the percentage of drug use among relatives of

students who used drugs was higher than that among relatives of students who did not use drugs. This suggests that students who have relatives who use drugs are more likely to be involved in drug use. Therefore, such students will have a higher degree of social tolerance for illegal drug use.

Hypothesis 12 (Differential Association Theory): Students who have classmates who use drugs will have a higher degree of social tolerance for illegal drug use than students who have no classmates who use drugs. Zhou (1994) pointed out that students who used illegal drugs usually used drugs when they were together at school or home. Students who have classmates who use illegal drugs will increase their risk of using illegal drugs. Therefore, students are more likely to tolerate drug use if they know other classmates who use drugs.

Hypothesis 13 (Differential Association Theory): Students who have friends who use drugs will have a higher degree of social tolerance for illegal drug use than students who have no friends who use drugs. Zhou (1994) found that the major source of drugs that students used was from their friends. Wu (1993) indicated that at least some of their friends had drug experience among all of the adolescents who used drugs. That is, students who have friends who use illegal drugs increase their chances of

using illegal drugs and thus, increase their degree of social tolerance for drug use.

Hypothesis 14 (Differential Association Theory): Students who have classmates who encourage them to use drugs will have a higher degree of social tolerance for illegal drug use than students who have no classmates who encourage them to use drugs. According to differential association theory, people learn deviant behavior from other persons. Students receive opportunities for learning attitudes in favor of drug use if they have classmates who encourage them to use drugs. These classmates usually not only have attitudes in favor of using drugs, but also have skills and resources to use drugs. These peers are some of the most influential persons in helping students to have a high degree of social tolerance for drug use.

Hypothesis 15 (Differential Association Theory): Students who have friends who encourage them to use drugs will have a higher degree of social tolerance for illegal drug use than students who have no friends who encourage them to use drugs. The rationale of this hypothesis is on the same basis as the rationale for hypothesis 14. But here the key other persons who offer learning opportunities for attitudes in favor of tolerance for drug use are their friends, who may be the most important peers in these student groups. That is, the effects of having friends who

encourage students to use drugs may be more important than classmates' effects.

CHAPTER 4

DATA AND METHODS

The data for this study were collected from junior high school students in Taipei, Taiwan, answering a newly designed questionnaire (see Appendix A). In Taiwan, most public junior high schools have three grades, first grade through third grade. The first grade students enter junior high school after having graduated from elementary school about age 12 to 13. They enter junior high school with not much experience of juvenile subculture. That is, these students are very easily influenced by their peers, teachers, and the environment they encounter. The second grade students are more mature than first grade students. They are more likely to develop their own peer groups and juvenile subcultures. The third grade students are the oldest students at junior high schools. Most of these students have developed more stable personalities and attitudes at this third grade, about age 14. Most of them are also preparing to enter senior high schools, which are usually different schools. Because of these various characteristics among junior high school students, their social tolerance for drug use was chosen to be examined. Their social tolerance for drug use is believed to be not as stable as that of senior high school students and more measurable than that of elementary students. Also, their

social tolerance for drug use is sure to influence the probability of their using drugs in their near future.

Taipei City, approximately 17 miles long and 11 miles wide covers 187 square miles and is located in northern Taiwan. As the capital of Taiwan in the Republic of China, Taipei City is the most advanced city in education, politics, economics, and culture in the country (Yih, 1994; Shu, 1992). With a population of 2,647,619 in 1995 (see Table 4.1), Taipei is the largest and most modern city in Taiwan. Also, Taiwan, with its population of over 21 million people, is a country of rapid social change and high economic growth among Asian Newly Industrializing Countries. Taiwan also is known as one of the Four Little Tigers countries, Taiwan, Korea, Hong Kong, and Singapore, which have similar Chinese cultural background and economic development patterns. Taipei, therefore, is representative of the rapid social and economic change among cities in developing countries. To study the drug issue in this city may contribute to the comparison and understanding of the other cities in these countries.

In the academic year 1995-1996, there were 85 junior high schools located in the 12 administrative districts: Sungshan, Hsini, Taan, Chungshan, Chungcheng, Tatung, Wanhua, Wenshan, Nankang, Neihu, Shihlin, and Peitou (Bureau of Education, Taipei Municipal Government, 1995). These unique features made junior high school students in

Table 4.1. Total Number of Juvenile Drug and Narcotics Arrests, Junior High School Student Populations, and Populations in Taipei City, 1990-95

Year	Number of Drug Use Arrests	Junior High School Student Population	Taipei Population
1990	344	142,167	2,719,659
1991	954	142,691	2,717,992
1992	1,344	142,623	2,696,073
1993	1,106	142,877	2,653,245
1994	760	139,969	2,653,578
1995	NA	131,678	2,647,619

NA: Not available.
Sources: *Central Daily News* (1995); Wu (1993); Yih (1994); Bureau of Education, Taipei Municipal Government (1995) Taipei Municipal Police Headquarters (1995)

Taipei, Taiwan suitable as subjects for conducting this study of social tolerance for drug use.

4.1. Description of Target Population

The population for this study is all students enrolled in the junior high schools in Taipei City, Taiwan, in the academic year 1995-1996. There were eighty-five junior high schools, including sixty-nine municipal, fifteen private, and one national, in twelve administrative districts in Taipei in the first semester of the academic year (see Table B.1 in Appendix B). The total number of students was 131,678 in 3,527 classes. The number of students in national, municipal, and private schools

respectively were 804; 123,043; and 7,831. The largest school, Municipal (#15), had 3,616 students in 96 classes, while the smallest school, Private (#81), enrolled 67 students in 2 classes. The average number of students in each class was about 37 in municipal junior high schools and 46 in private schools (Bureau of Education, Taipei Municipal Government, 1995).

4.2. The Sample

In order to obtain a random sample with a sampling error less than ±5 percent at the 95 percent confidence level, which is over 385 students, and to have students answer the questionnaire confidentially in a class setting, I decided to sample five schools from all the junior high schools (See Table 4.2). This study next stratified all the schools into public (national and municipal) and private. The public schools represented the larger portion of the total number of schools. Thus, this study selected a public school sample size of four schools, and from private schools this study selected one school to be sampled. The public schools were further stratified by the size of the schools and the location of the administrative districts. Four public schools and one private school were randomly selected from the size and district location. Each school has three grades of classes. One class was randomly selected from within each grade at each school. Fifteen classes were expected to be sampled. Because one

Table 4.2. Summary of Sampling Procedure and Results

Population				
Number of Schools	Number of Classes	Number of Students		
		Total	Male	Female
85	3,527	131,678	-	-
National (1)	21	804	389	415
Municipal (69)	3,335	123,043	-	-
Private (15)	171	7,831	-	-

Sample				
Number of Schools N=5	Number of Classes	Number of Students		
		Total	Male	Female
National (0)	0	0	0	0
Municipal (4)	13	455	-	-
Private (1)	3	149	-	-
Total Sample	16	604	322	282
		100%	53%	47%

Sources: Bureau of Education, Taipei Municipal Government (1995)

of the schools had sex segregated classes in Second Grade, this study randomly sampled one additional male class after a female class was sampled to make the number of male students close to the number of female students. In all, fourteen male and female mixed classes, one female class, and one male class, for a total of sixteen classes, were sampled for this study. The total sample for this study was 604 students (approximately 0.4% of the total junior high school students in Taipei). Because this sample was randomly selected, it has a sampling error of less than ±4

percent at the 95 percent confidence level (Grimm and Wozniak, 1990).

4.3. Measurement of Dependent Variables

Social tolerance for drug use is measured by ten variables. In order to measure students' social tolerance for friends' use of amphetamines, heroin, and marijuana with three variables, students were asked to rate their approval for their friends' use of each of the three types of drugs on a scale from 1-6, where 1 represents the lowest level of approval and 6 represents the highest level of approval. In order to measure students' social tolerance for self use of amphetamines, heroin, and marijuana with three variables, students were asked to rate their approval on a scale from 1-6, where 1 represents the lowest level of approval and 6 represents the highest level of approval.

In order to determine the students' attitudes toward legalization of use of amphetamines, heroin, and marijuana, the students were asked to rate their attitudes about legalization on a scale from 1 to 4, where 1 represented strongly disagree; 2, disagree; 3, agree; 4, strongly agree. Finally, in order to measure whether students ever thought about using drugs, the students were asked to select either 1, no; or 2, yes.

4.4. Measurement of Independent Variables

Individual Characteristics: In order to measure students' grades in school, students were asked to select:

1, first grade (equal to 7th grade in the United States); 2, second grade (equal to 8th grade in the United States); and 3, third grade (equal to 9th grade in the United States). For analytical purposes, grade in school was recoded into three dummy variables: first grade; second grade; and third grade. Third grade was treated as a contrast category.

Students' gender was reported as follows: 1 was assigned to male, and 2 was assigned to female. For analytical purposes, gender was recoded into a dummy variable: male and female. Male was treated as a contrast category.

In order to measure students' ethnic group, students were asked if they were: 1, native Taiwanese; 2, Min-Nun; 3, Hakka; 4, Mainlander; or 5, other. For analytical purposes, ethnicity was recoded into five dummy variables: Min-Nanese; Native; Mainlander; Hakka; and other groups or group unknown. Min-Nanese was treated as a contrast category.

In order to measure both students' academic achievement and interaction with the major teacher (each class has one major teacher through the semester to manage, advise, and care for the students in the class), students were first asked to rate their academic achievement subjectively on a scale from 1 to 4, where 1 represented poor; 2, fair; 3, good; and 4, excellent. Second, in order

to measure interaction with the major teacher, the students were asked to rate their interaction with their major teachers on a scale from 1 to 4, where 1 represented little or none; 2, some but not often; 3, often; and 4, very often.

Family Influences: In order to measure which parent(s) students were living with, students were asked to select: 1, neither parent; 2, only father; 3, only mother; and 4, both parents. For analytical purposes, the living arrangements variable was recoded into three dummy variables: live with both parents; live with father; and live with mother. Living with both parents was treated as a contrast category.

In order to measure mothers' religious affiliation, students were asked to select: 1, Buddhism; 2, Yiguandao (a religion which integrates Buddhism, Taoism, and several other religious faiths); 3, Taoism; 4, folk belief (a religious belief which worships local gods or goddesses); 5, Christian (except Catholic); 6, Catholic; 7, no religious affiliation; and 8, other religious affiliation. For analytical purposes, mothers' religious affiliation was recoded into five dummy variables: Buddhist; Christian; Taoist; other religious affiliation; and no religious affiliation. No religious affiliation was treated as a contrast category.

In order to measure both students' weekly allowance and annual family income, first, students were asked to give the amount of New Taiwan Dollars (one US Dollar equaled to about 27.3 New Taiwan Dollars in January 1996) of their weekly allowance and their annual family income. For statistical purposes, the unit of allowance was recoded to categories of one thousand New Taiwan Dollars. Also, the unit of income was recoded to categories of one million New Taiwan Dollars.

In order to measure fathers' educational attainment, students were asked to select: 1, none; 2, elementary school; 3, junior high school; 4, senior high school; and 5, college or above. Fathers' education was recoded into four dummy variables: elementary school; junior high school; senior high school; and college or above. Senior high school was treated as a contrast category.

Drug Environment: The variables pertaining to drug use among relatives, friends, or classmates were measured by dichotomized categories: 1, no; and 2, yes. Also, the variables relating to classmates and friends' encouragement for drug use were measured by dichotomized categories: 1, no; and 2, yes. For analytical purposes, each of the relatives', classmates', and friends' use of drugs and classmates' and friends' encouragement for drug use was recoded into two dummy variables: yes and no. The yes group was treated as a contrast category.

4.5. Instrument and Data Collection

A newly developed questionnaire was used as a tool to collect the data. The questionnaire was translated into Chinese format. This questionnaire was pretested and revised where needed. Questionnaires were distributed to the student samples by this researcher in October and November of 1995, during the middle of junior high school First Semester of the 1995-96 academic year in Taipei, Taiwan. The students in each class completed the questionnaires during class time, which was estimated to take about twenty minutes.

4.6. Statistical Treatment

Descriptive statistics were computed to describe the samples' individual and family characteristics; drug environment; and degree of social tolerance for amphetamines, heroin, and marijuana use. This statistical treatment also helped to eliminate or recode those variables in which frequency or percentage distributions were found to be too skewed.

Correlation coefficients of all variables used in the model were used to examine the correlations between each of the two variables. This statistical treatment was used to select which of the variables were highly intercorrelated and which variables should be preserved in the model to serve as the measurement of their concepts.

Variance inflation factor (VIF) was used to further detect a potential problem of multicollinearity among independent variables in the ordinary least square (OLS) multiple regression models. Usually, a VIF smaller than 4 indicates that the independent variables are less likely to have a problem of multicollinearity.

Factor analysis was used to confirm whether the social tolerance for use of drugs by friends, social tolerance for personal use of drugs, legalization of use of drugs, and thoughts about using drugs variables belonged to the same factor. This statistical treatment served to decide which variables among these dependent variables load together, or if there is a need for creating other factors.

Finally, both OLS multiple regression analysis, used when the dependent variables are continuous, and logistic regression, used when the dependent variables are categorical, examined the influences of independent variables on dependent variables. Also, the same methods were used to determine the degree of predictability of the independent variables for social tolerance for drug use among junior high school students in Taipei, Taiwan.

CHAPTER 5

CHARACTERISTICS OF SAMPLE AND SOCIAL TOLERANCE FOR DRUG USE

In the first three sections of this chapter, I present respectively, individual and family characteristics and drug environment of junior high school students in Taipei, Taiwan. Then I examine the degree of social tolerance for drug use among the students. The tables which present the statistical data for these sections can be found in Appendix C.

5.1. Individual Characteristics

The students in this study are analyzed by their grade in school, gender, ethnic group, academic achievement, and interaction with major teachers. This study included a sample of 604 junior high school students in Taipei, Taiwan. With 37% of the sample, second grade junior high school students were the largest number of cases in this study. The smallest number of cases was the third grade students, with 30%. Among these students 53% were male and 47% were female. The percentage distributions of students' grade in school and gender are presented in Table C.1 in Appendix C.

The majority ethnic group of the students was "Min-Nan." A Min-Nanese in Taiwan is a person whose father's ancestors moved from Min-Nan area in Fuchen Province, China, to Taiwan before 1949. The second largest ethnic

group of the students was "Mainlander." A Mainlander in Taiwan is a person whose father, or father's ancestors, moved from mainland China to Taiwan after 1949. A "Hakkan" is a person whose father's ancestors moved from Hakka counties in Canton Province, China, to Taiwan before 1949. The native Taiwanese is the minority ethnic group in Taiwan. The category "Other" means that the students could not identify which ethnic groups their fathers belong to. The percentage distribution of the students' ethnic group is presented in Table C.2 in Appendix C.

More than 80% of the students thought that their academic achievement was not good. The percentage distribution of the students' perceptions of academic achievement is presented in Table C.3 in Appendix C.

Nearly 90% of the students did not interact with their major teachers often. The percentage distribution of the students' interaction with major teachers is presented in Table C.4 in Appendix C.

In summary, the analyses of individual characteristics showed that the second grade level students comprised the largest number in the sample. The number of male students was slightly higher than the number of female students. The major ethnic group of the students was Min-Nan. Most of the students did not think their academic achievement was good. Finally, most of the students interacted with their major teacher infrequently.

5.2. Family Characteristics

The family characteristics of the students in this study include which parent(s) students lived with, mothers' religious affiliation, students' weekly allowance, monthly family income, and fathers' educational attainment. Most of the students lived with both parents. Only 14% of the students lived with either one parent or no parents. The percentage distribution of the parent(s) students live with is presented in Table C.5 in Appendix C.

Most of the students' mothers were Buddhist. The percentage distribution of the mothers' religious affiliation is presented in Table C.6 in Appendix C.

The average weekly allowance of students was 612 New Taiwan Dollars, about 24 U.S. Dollars (one U.S. Dollar equals about 27.3 N.T. Dollars in January 1996). Over 4% of the students had no allowance. The largest amount of allowance was 6,000 N.T. Dollars, about 220 U.S. Dollars. Most students, nearly 12%, had 500 N.T. Dollars, about 18 U.S. Dollars.

The average monthly family income of the students was about 107,000 N.T. Dollars, about 3,900 U.S. Dollars. Only one family had no monthly income. Most of the families, over 15%, had incomes of 100,000 N.T. Dollars, about 3,700 U.S. Dollars. The highest income was 3,000,000 N.T. Dollars, about 110,000 U.S. Dollars.

Finally, more than one-third of fathers had educational attainment of college or above. The percentage distribution of the fathers' educational attainment is presented in Table C.7 in Appendix C.

In summary, analyses of family characteristics indicated that most of the students lived with both parents. Buddhism was the major religion of the mothers. Most of the fathers had some college education.

5.3. Drug Environment

The drug environment of the students in this study are analyzed by their relatives', classmates', and friends' drug experience and classmates' and friends' invitation to use illegal drugs. Most students reported that their relatives had no drug experience. Only 4% of the students reported that some of their relatives used illegal drugs.

Only 4% of the students reported that some of their classmates used illegal drugs. More than 7% of the students reported that some of their friends had drug experiences. Less than 1% of the students said that their classmates ever invited them to use drugs. Less than 2% of the students reported that they were invited by their friends to use drugs.

In summary, few of the relatives, classmates, and friends had drug experience. Very few of the students were encouraged by their classmates and friends to use drugs.

5.4. Social Tolerance for Drug Use

This study includes six direct measures and four alternative measures of social tolerance for drug use. In order to understand different aspects of social tolerance for drug use among junior high school students in Taipei, Taiwan, this study includes direct measures of the students' degree of social tolerance for drug use: three for use of amphetamines, heroin, and marijuana by their friends and three for use of the three drugs by themselves. The alternative measures of social tolerance for drug use include the students' perceptions of legalization of use of amphetamines, heroin, and marijuana and whether the students thought about personal use of drugs.

The percentage distribution of the students' degree of social tolerance for use of drugs by their friends is presented in Table C.8 in Appendix C. The distribution shows that more than 62% of the students reported the lowest degree of social tolerance for use of amphetamines, heroin, or marijuana by their friends. Less than 38% of the students reported a higher degree of social tolerance for use of the three drugs by their friends.

Students were less tolerant of the use of amphetamines, heroin, or marijuana by themselves than by their friends. More than 91% of the students reported the lowest degree of social tolerance for use of amphetamines, heroin, or marijuana by themselves. Less than 9% of the

students reported a higher degree of social tolerance for use of the three drugs by themselves. The distribution of the students' degree of social tolerance for use of drugs by themselves is presented in Table C.9 in Appendix C.

More than 94% of the students disagreed that the use of the three drugs should be legalized. The distribution of students' attitudes toward legalization of the use of drugs is presented in Table C.10 in Appendix C.

Finally, most of the students reported they never thought about using drugs. Only 6% of the students reported that they had ever thought about using drugs.

In summary, from the percentage distributions of the students' degree of social tolerance and perceptions of legalization for use of amphetamines, heroin, or marijuana, it appears that social tolerance was similar for each of the drugs. Because of this condition, further analyses of social tolerance for use of the three drugs will be combined into one "drugs" variable. While degrees of social tolerance for use of drugs by both the students and their friends were all very low, nearly 30% more students had a lower degree of social tolerance for use of drugs by themselves than for use of drugs by their friends. Most students did not agree with the legalization of the three drugs. Few of the students said that they ever thought about using drugs. This concludes the results of the descriptive analysis. The next chapter reports the results

of the analyses of relationships between students' social tolerance for drug use and individual, family, and drug environment characteristics.

CHAPTER 6

FACTORS INFLUENCING SOCIAL TOLERANCE FOR DRUG USE

In the last chapter, the percentage distributions of students' degree of social tolerance and perceptions of legalization for the three drugs show that each of the drugs received a similar degree of social tolerance and perceptions of legalization for use of them. For this reason, the three drugs were combined into one "drugs" variable in the later analyses of degree of social tolerance and perceptions of legalization for drug use.

In the first section of this chapter, this study examines the results of the correlations among the variables used in the model. This study next examines the relationships between dependent variables, social tolerance for use of drugs by friends, social tolerance for personal use of drugs, perceptions of legalization of use of drugs, and thoughts about personal use of drugs, and each of the independent dimensions, the individual, family, and drug environment characteristic influences. The full models, by controlling all the independent variables of the relationships between these factors and social tolerance for drug use, are illustrated in the next section. The factor analysis of students' social tolerance for use of drugs, the relationships between the factor(s) and each of the individual, family, and drug environment influences,

and the full model are reported in the last section of this chapter.

6.1. The Results of Correlations

Table 6.1 presents the zero-order correlations for the four dependent variables and fifteen independent variables used in the model. The table shows that all the coefficients are not large. That is, there is no need for reducing variables for the model at this point.

6.2. Social Tolerance for Drug Use and the Three Groups of Influences

The first set of tables examines relationships between students' individual characteristics and their social tolerance for use of drugs by students' friends and themselves, their perceptions of legalization of use of drugs, and thoughts about personal use of drugs. The second set of examinations tests the relationships between family influences and social tolerance for use of drugs by students' friends and themselves, their perceptions of legalization of use of drugs, and thoughts about personal use of drugs. The third set of examinations tests the relationships between drug environment and social tolerance for use of drugs by students' friends and themselves, their perceptions of legalization of use of drugs, and thoughts about personal use of drugs.

Table 6.1 Zero-Order Correlations for All Variables Used in the Model

	1.	2.	3.	4.	5.	6.	7.
1.	1.00						
2.	.34**	1.00					
3.	.27**	.25**	1.00				
4.	.27**	.24**	.31**	1.00			
5.	.14**	.11*	.05	.06	1.00		
6.	-.01	.04	.06	.06	.01	1.00	
7.	-.06	-.06	-.05	-.07	-.05	-.08	1.00
8.	-.06	-.10*	.01	-.06	.02	.08	-.11*
9.	-.08	-.12*	-.04	-.09	-.05	.08	.02
10.	-.06	-.12*	-.04	.01	.01	-.05	.01
11.	.02	.02	.03	-.01	.04	-.01	.03
12.	.01	.11*	.02	.05	.15**	-.06	-.01
13.	-.01	-.01	-.05	.02	.02	-.01	.01
14.	-.01	-.04	-.07	-.08	.01	-.01	.21**
15.	.07	.06	.07	.10*	-.01	-.02	-.02
16.	.12*	.12*	.14**	.14**	.07	.01	-.03
17.	.15**	.16**	.08	.12*	.11*	.01	-.05
18.	.15**	.07	.16**	.28**	.03	-.01	-.03
19.	.18**	.15**	.21**	.42**	.04	-.01	-.13**

1. = Social Tolerance for Use of Drugs by Friends
2. = Social Tolerance for Personal Use of Drugs
3. = Legalization of Use of Drugs
4. = Thoughts about Personal Use of Drugs
5. = Grade in Junior High School
6. = Gender
7. = Ethnicity
8. = Academic Achievement
9. = Interaction with Major Teachers
10. = Living Arrangements
11. = Mothers' Religious Affiliation
12. = Weekly Allowance (1,000 New Taiwan Dollars)
13. = Monthly Family Income (1,000,000 New Taiwan Dollars)
14. = Fathers' Education
15. = Relatives' Use of Drugs
16. = Classmates' Use of Drugs
17. = Friends' Use of Drugs
18. = Classmates Who Encouraged Drug Use
19. = Friends Who Encouraged Drug Use

**p<.01 *p<.05

(table cont.)

	8.	9.	10.	11.	12.	13.	14.
8.	1.00						
9.	.25**	1.00					
10.	.10*	.03	1.00				
11.	.03	.06	-.03	1.00			
12.	-.06	-.04	-.05	.02	1.00		
13.	.04	.04	.03	-.02	.18**	1.00	
14.	.14**	.11*	.09	-.02	-.06	.12*	1.00
15.	-.11*	.01	-.05	-.01	.10*	-.03	-.08
16.	.04	-.02	.01	-.02	.05	.01	-.04
17.	-.02	-.05	-.01	-.03	.15**	.02	-.06
18.	-.02	-.03	.03	-.05	.06	.01	-.01
19.	-.01	-.05	.04	-.01	.08	.01	-.05

	15.	16.	17.	18.	19.
15.	1.00				
16.	.20**	1.00			
17.	.29**	.37**	1.00		
18.	.27**	.38**	.26**	1.00	
19.	.14**	.40**	.34**	.50**	1.00

1. = Social Tolerance for Use of Drugs by Friends
2. = Social Tolerance for Personal Use of Drugs
3. = Legalization of Use of Drugs
4. = Thoughts about Personal Use of Drugs
5. = Grade in Junior High School
6. = Gender
7. = Ethnicity
8. = Academic Achievement
9. = Interaction with Major Teachers
10. = Living Arrangements
11. = Mothers' Religious Affiliation
12. = Weekly Allowance (1,000 New Taiwan Dollars)
13. = Monthly Family Income (1,000,000 New Taiwan Dollars)
14. = Fathers' Education
15. = Relatives' Use of Drugs
16. = Classmates' Use of Drugs
17. = Friends' Use of Drugs
18. = Classmates Who Encouraged Drug Use
19. = Friends Who Encouraged Drug Use

**p<.01 *p<.05

6.2.1. The Influence of Individual Characteristics

This section examines the relationships between individual characteristics and social tolerance for drug use. Tables 6.2 and 6.3 present the results of ordinary least square (OLS) regression of students' social tolerance for use of drugs by students' friends and themselves on individual characteristics: grade in school, gender, ethnicity, academic achievement, and interaction with major teachers. No individual characteristics significantly affected students' perceptions of legalization of use of drugs. Table 6.4 presents the results of logistic regression of students who ever thought about using drugs on these individual characteristics.

Table 6.2 shows that the first grade students reported significantly less tolerance for use of drugs by their friends than the third grade students, controlling for other individual characteristic predictors (Hypothesis 1). Gender (Hypothesis 2), ethnicity (Hypothesis 3), academic achievement (Hypothesis 4), and interaction with major teachers (Hypothesis 5) had no significant effect on social tolerance for use of drugs by their friends.

Table 6.3 shows that both the first and second grade students reported significantly less tolerance for personal use of drugs than the third grade students (Hypothesis 1). The first grade students were as much as two times less tolerant of personal use of drugs as the second grade

Table 6.2 Unstandardized and Standardized Coefficients for OLS Regression of Students' Social Tolerance for Use of Drugs by Their Friends on Selected Individual Characteristic Variables

Independent Variables	Unstandardized Coefficients	Standardized Coefficients
Grade in Junior High School		
First Grade	-1.00* (.30)	-.16*
Second Grade	-.39 (.30)	-.06
Third Grade	contrast	contrast
Gender		
Male	contrast	contrast
Female	-.02 (.24)	-.01
Ethnicity		
Min-Nanese	contrast	contrast
Native	.73 (.54)	.06
Mainlander	.01 (.30)	.01
Hakka	-.30 (.45)	-.03
Other	-.56 (.42)	-.06
Academic Achievement	-.22 (.19)	-.05
Interaction with Teachers	-.31 (.25)	-.05
(Constant)		6.41**
Largest Variance Inflation Factor (VIF)		1.44
R^2		.03
Adjusted R^2		.02
Number of Students		602

**p<.01 *p<.05 +p<.10

Note: Standard errors are in parentheses.

Table 6.3 Unstandardized and Standardized Coefficients for OLS Regression of Students' Social Tolerance for Personal Use of Drugs on Selected Individual Characteristic Variables

Independent Variables	Unstandardized Coefficients	Standardized Coefficients
Grade in Junior High School		
First Grade	-.48** (.21)	-.14**
Second Grade	-.43** (.30)	-.07**
Third Grade	contrast	contrast
Gender		
Male	contrast	contrast
Female	.18 (.14)	.05
Ethnicity		
Min-Nanese	contrast	contrast
Native	.13 (.31)	.02
Mainlander	-.12 (.17)	-.03
Hakka	-.11 (.26)	-.02
Other	-.40 (.24)	-.07
Academic Achievement	-.21+ (.11)	-.07+
Interaction with Teachers	-.30* (.14)	-.09*
(Constant)		4.77**
Largest Variance Inflation Factor (VIF)		1.44
R^2		.05
Adjusted R^2		.03
Number of Students		602

**p<.01 *p<.05 +p<.10

Note: Standard errors are in parentheses.

Table 6.4 Logistic Regression of Students Who Ever Thought about Using Drugs on Selected Individual Characteristic Variables

Independent Variables	Coefficients	Standard Errors
Grade in Junior High School		
First Grade	-.70	.44
Second Grade	-.44	.41
Third Grade	contrast	
Gender		
Male	contrast	
Female	.63+	.36
Ethnicity		
Min-Nanese	contrast	
Native	1.72**	.51
Mainlander	-.12	.47
Hakka	-.96	1.04
Other	.24	.59
Academic Achievement	-.15	.29
Interaction with Teachers	-.67+	.36
(Constant)	-1.27	
-2 Log Likelihood	259.57	
Number of Students	603	

**p<.01 *p<.05 +p<.10

students, compared to the third grade students. Gender (Hypothesis 2) and ethnicity (Hypothesis 3) had no significant effect on social tolerance for personal use of drugs. Poor academic students (Hypothesis 4) and students with less frequent interaction with major teachers (Hypothesis 5) reported significantly more tolerance for personal use of drugs.

Table 6.4 shows that female students were significantly more likely to think about using drugs than male students (Hypothesis 2). Native Taiwanese students were significantly more likely to think about using drugs than Min-Nanese students (Hypothesis 3). Students with less frequent interaction with major teachers were significantly more likely to think about using drugs (Hypothesis 5). Grade in school (Hypothesis 1) and academic achievement (Hypothesis 4) had no significant effect on students who ever thought about using drugs.

In summary, grade in school (Hypothesis 1) is the only factor among individual characteristics that significantly affected tolerance for friends using drugs. The first grade students reported significantly less social tolerance for use of drugs by their friends. Three factors, grade in school (Hypothesis 1), academic achievement (Hypothesis 4), and interaction with major teachers (Hypothesis 5), significantly affected tolerance for personal use of drugs. The first and second grade students had significantly lower

social tolerance for personal use of drugs than the third grade students. Students who had better academic achievement and more frequent interaction with major teachers were significantly less likely to tolerate personal use of drugs. Students' perceptions of legalization of use of drugs were not significantly affected by any of the individual characteristics. Three factors, gender (Hypothesis 2), ethnicity (Hypothesis 3), and interaction with major teachers (Hypothesis 5), significantly predicted the students who ever thought about personal use of drugs. Female students were significantly more likely to have ever thought about using drugs than male students. Native Taiwanese students were significantly more likely to have ever thought about using drugs than Min-Nanese students. Finally, students who reported more frequent interaction with major teachers were significantly less likely to have ever thought about using drugs.

6.2.2. <u>The Influences of Family Characteristics</u>

This section examines the relationships between family influences and social tolerance for drug use. Table 6.5 presents the results of OLS regression of students' social tolerance for personal use of drugs on family influences, living arrangements, mothers' religious affiliation, weekly allowance, monthly family income, and fathers' education. Table 6.6 presents the results of logistic regression of

Table 6.5 Unstandardized and Standardized Coefficients for OLS Regression of Students' Social Tolerance for Personal Use of Drugs on Selected Family Influence Variables

Independent Variables	Unstandardized Coefficients		Standardized Coefficients
Living Arrangements			
Live with Both Parents	contrast		contrast
Live with Father	.78*	(.30)	.11*
Live with Mother	.11	(.29)	.02
Mothers' Religious Affiliation			
Buddhist	-.25	(.20)	-.07
Christian	-.05	(.31)	-.01
Taoist	-.66*	(.34)	-.09*
Other Religious Affiliation	-.51	(.35)	-.07
No Religious Affiliation	contrast		contrast
Weekly Allowance	.25*	(.10)	.10*
Monthly Family Income	-.23	(.38)	-.02
Fathers' Education			
Elementary School	.25	(.21)	.05
Junior High School	.16	(.22)	.03
Senior High School	contrast		contrast
College or Above	-.10	(.17)	-.03
(Constant)			3.47**
Largest Variance Inflation Factor (VIF)			1.88
R^2			.04
Adjusted R^2			.02
Number of Students			603

**p<.01 *p<.05 +p<.10

Note: Standard errors are in parentheses.

Table 6.6 Logistic Regression of Students Who Ever Thought about Using Drugs on Selected Family Influence Variables

Independent Variables	Coefficients	Standard Errors
Living Arrangements		
Live with Both Parents	contrast	
Live with Father	-1.10	1.05
Live with Mother	.07	.58
Mothers' Religion		
Buddhist	-.85*	.44
Christian	.14	.61
Taoist	-1.17	.85
Other Religion	-7.31	16.65
No Religious Affiliation	contrast	
Weekly Allowance	.23	.19
Monthly Family Income	.29	.73
Fathers' Education		
Elementary School	.83+	.45
Junior High School	.23	.53
Senior High School	contrast	
College or Above	-.65	.47
(Constant)	-2.21	
-2 Log Likelihood	264.90	
Number of Students	604	

**p<.01 *p<.05 +p<.10

students who ever thought about personal use of drugs on these family influences. No family influences significantly affected students' social tolerance for use of drugs by friends and perceptions of legalization of use of drugs.

Table 6.5 shows that students who lived with their father reported significantly more tolerance for personal use of drugs than did the students who lived with both parents (Hypothesis 6), controlling for other predicted family influences. Students whose mothers were Taoist were significantly less likely to tolerate personal use of drugs than the students whose mothers had no religious affiliation (Hypothesis 7). Students who had more weekly allowance reported significantly more tolerance for their personal use of drugs (Hypothesis 8). Family income (Hypothesis 9) and fathers' education (Hypothesis 10) had no significant effect on social tolerance for personal use of drugs.

Table 6.6 shows that students who had Buddhist mothers were significantly less likely to think about using drugs than students who had mothers who had no religious affiliation (Hypothesis 7). Students who had fathers with only an elementary school education were significantly more likely to think about using drugs than students who had fathers with senior high school education (Hypothesis 10). Living arrangements (Hypothesis 6), weekly allowance

(Hypothesis 8), and family income (Hypothesis 9) had no significant effect on students who ever thought about using drugs.

In summary, three family factors, living arrangements (Hypothesis 6), mothers' religious affiliation (Hypothesis 7), and weekly allowance (Hypothesis 8), significantly affected social tolerance for personal use of drugs. The students who lived with their father had significantly higher social tolerance for personal use of drugs than the students who lived with both parents. Students who had Taoist mothers reported less social tolerance for personal use of drugs. Students who had less weekly allowance were significantly less likely to tolerate personal use of drugs. Students' social tolerance for use of drugs by friends and their perceptions of legalization of use of drugs were not significantly affected by any of the family influences. Two factors, mothers' religious affiliation (Hypothesis 7) and fathers' education (Hypothesis 10), significantly predicted the students who ever thought about using drugs. Students who had Buddhist mothers were significantly less likely to have ever thought about using drugs than students who had mothers who had no religious affiliation. Finally, students who had fathers with only an elementary school education were significantly more likely to have ever thought about using drugs than students who had fathers with senior high school education.

6.2.3. The Influences of Drug Environment

This section examines the relationships between drug environment and social tolerance for drug use. Tables 6.7, 6.8, and 6.9 present the results of OLS regression of students' social tolerance for use of drugs by students' friends and themselves and their perceptions of legalization of use of drugs on drug environment characteristics, relatives', classmates', and friends' use of drugs, and classmates and friends who encouraged students to use drugs. No drug environment characteristics of the students significantly affected students who ever thought about personal use of drugs.

Both Tables 6.7 and 6.8 show that students who had friends who used drugs reported significantly more tolerance for use of drugs by their friends and themselves than students who had no friends who used drugs (Hypothesis 13), controlling for other drug environment predictors. Students who had friends who encouraged them to use drugs reported significantly more tolerance for friends and themselves to use drugs (Hypothesis 15). Relatives' use of drugs (Hypothesis 11), classmates' use of drugs (Hypothesis 12), and classmates who encouraged drug use (Hypothesis 14) had no significant effect on social tolerance for use of drugs by students and their friends.

Table 6.9 shows that students who had friends who encouraged them to use drugs were significantly more likely

Table 6.7 Unstandardized and Standardized Coefficients for OLS Regression of Students' Social Tolerance for Use of Drugs by Their Friends on Selected Drug Environment Variables

Independent Variables	Unstandardized Coefficients	Standardized Coefficients
Relatives' Use of Drugs		
Yes	.14 (.68)	.01
No	contrast	contrast
Classmates' Use of Drugs		
Yes	.22 (.75)	.01
No	contrast	contrast
Friends' Use of Drugs		
Yes	1.04* (.53)	.09*
No	contrast	contrast
Classmates Who Encouraged Drug Use		
Yes	1.81 (1.58)	.06
No	contrast	contrast
Friends Who Encouraged Drug Use		
Yes	3.24* (1.34)	.12*
No	contrast	contrast
(Constant)		4.75**
Largest Variance Inflation Factor (VIF)		1.49
R^2		.05
Adjusted R^2		.04
Number of Students		602

**p<.01 *p<.05 +p<.10
Note: Standard errors are in parentheses.

Table 6.8 Unstandardized and Standardized Coefficients for OLS Regression of Students' Social Tolerance for Personal Use of Drugs on Selected Drug Environment Variables

Independent Variables	Unstandardized Coefficients	Standardized Coefficients
Relatives' Use of Drugs		
Yes	.08 (.40)	.01
No	contrast	contrast
Classmates' Use of Drugs		
Yes	.48 (.44)	.05
No	contrast	contrast
Friends' Use of Drugs		
Yes	.72* (.31)	.11*
No	contrast	contrast
Classmates Who Encouraged Drug Use		
Yes	-.64 (.93)	-.03
No	contrast	contrast
Friends Who Encouraged Drug Use		
Yes	1.79* (.79)	.11*
No	contrast	contrast
(Constant)		4.64**
Largest Variance Inflation Factor (VIF)		1.49
R^2		.10
Adjusted R^2		.06
Number of Students		602

**p<.01 *p<.05 +p<.10
Note: Standard errors are in parentheses.

Table 6.9 Unstandardized and Standardized Coefficients for OLS Regression of Students' Attitudes toward Legalization of Use of Drugs on Selected Drug Environment Variables

Independent Variables	Unstandardized Coefficients	Standardized Coefficients
Relatives' Use of Drugs		
Yes	.20 (.39)	.02
No	contrast	contrast
Classmates' Use of Drugs		
Yes	.61 (.42)	.07
No	contrast	contrast
Friends' Use of Drugs		
Yes	-.05 (.30)	-.01
No	contrast	contrast
Classmates Who Encouraged Drug Use		
Yes	.92 (.91)	.05
No	contrast	contrast
Friends Who Encouraged Drug Use		
Yes	2.47** (.77)	.16**
No	contrast	contrast
(Constant)		3.83**
Largest Variance Inflation Factor (VIF)		1.48
R^2		.05
Adjusted R^2		.04
Number of Students		604

**p<.01 *p<.05 +p<.10
Note: Standard errors are in parentheses.

to favor the legalization of drugs than the students who had no friends who encouraged them to use drugs (Hypothesis 15). Relatives' use of drugs (Hypothesis 11), classmates' use of drugs (Hypothesis 12), friends' use of drugs (Hypothesis 13), and classmates who encouraged drug use (Hypothesis 14) had no significant effect on students' perceptions of legalization of use of drugs.

In summary, two factors, friends' use of drugs (Hypothesis 13) and friends who encouraged drug use (Hypothesis 15), significantly affected tolerance for personal and friends' use of drugs. Students who had friends who used drugs were significantly more likely to tolerate personal and friends' use of drugs than the students who had no friends who used drugs. Students who had friends who encouraged them to use drugs reported significantly more social tolerance for use of drugs by the students and their friends. Friends who encouraged drug use (Hypothesis 15) is the only factor among drug environment characteristics that significantly affected students' attitudes toward legalization of use of drugs. The students who had friends who encouraged them to use drugs reported significantly more favorable attitude toward legalization of use of drugs than the students who had no friends who encouraged them to use drugs. Finally, students who ever thought about personal use of drugs were

not significantly affected by any of the drug environment characteristics.

6.3. Predictors of Social Tolerance for Drug Use

In the previous sections of this chapter, this study investigates each of the relationships between social tolerance for drug use and the influencing factors by controlling for other relevant factors in each of the individual characteristics, family influences, and drug environment. In this section, this study further examines the relationships between all of the students' individual, family, and drug environment characteristics and social tolerance for use of drugs by controlling for other relevant predictors in the models.

Table 6.10 reports OLS regression of students' social tolerance for use of drugs by their friends on the individual characteristics, family influence, and drug environment predictors in the model. The model shows that students' grades and two drug environment conditions were the major influences on students' social tolerance for use of drugs by their friends. When we compare Table 6.10 with Table 6.2, the effect of the first grade students remains statistically significant. The contribution of grade variable, however, shrinks by about 13% with introduction of the family influences and drug environment. This suggests that the predictive power of being the first grade students is shared with the family influences and drug

Table 6.10 Unstandardized and Standardized Coefficients for OLS Regression of Students' Social Tolerance for Use of Drugs by Their Friends on Selected Individual Characteristic, Family Influence, and Drug Environment Variables

Independent Variables	Unstandardized Coefficients		Standardized Coefficients
Individual Characteristics			
Grade in Junior High School			
First Grade	-.88**	(.21)	-.14**
Second Grade	-.43	(.30)	-.07
Third Grade	contrast		contrast
Gender			
Male	contrast		contrast
Female	-.04	(.24)	-.01
Ethnicity			
Min-Nanese	contrast		contrast
Native	-.10	(.57)	-.01
Mainlander	-.13	(.32)	-.02
Hakka	-.30	(.45)	-.03
Other	-.59	(.41)	-.06
Academic Achievement	-.24	(.20)	-.05
Interaction with Teachers	-.27	(.25)	-.05
Family Influences			
Living Arrangements			
Live with Both Parents	contrast		contrast
Live with Father	.74	(.51)	.06
Live with Mother	.30	(.51)	.02
Mothers' Religious Affiliation			
Buddhist	-.24	(.34)	-.04
Christian	.32	(.53)	.03
Taoist	-.19	(.58)	-.02
Other Religious Affiliation	-.15	(.59)	-.01
No Religious Affiliation	contrast		contrast
Weekly Allowance	-.18	(.18)	-.04
Monthly Family Income	.04	(.65)	.01

(table cont.)

Independent Variables	Unstandardized Coefficients	Standardized Coefficients
Family Influences		
Fathers' Education		
Elementary School	-.01 (.37)	-.01
Junior High School	-.48 (.38)	-.06
Senior High School	contrast	contrast
College or Above	-.15 (.30)	-.02
Drug Environment		
Relatives' Use of Drugs		
Yes	.18 (.70)	.01
No	contrast	contrast
Classmates' Use of Drugs		
Yes	.25 (.76)	.02
No	contrast	contrast
Friends' Use of Drugs		
Yes	.89+ (.54)	.08+
No	contrast	contrast
Classmates Who Encouraged Drug Use		
Yes	2.01 (1.60)	.06
No	contrast	contrast
Friends Who Encouraged Drug Use		
Yes	3.09* (1.37)	.11*
No	contrast	contrast
(Constant)		6.66**
Largest Variance Inflation Factor (VIF)		1.94
R^2		.08
Adjusted R^2		.04
Number of Students		602

**p<.01 *p<.05 +p<.10
Note: Standard errors are in parentheses.

environment. In other words, we should control these family influences and drug environment in order to adequately account for the effect of being first grade students.

When we compare Table 6.10 with Table 6.7, the effect of friends' use of drugs and friends' encouragement for drug use remain statistically significant. The contribution of friends' use of drugs and friends who encouraged drug use variables, however, shrinks by about 11% and 8%, respectively, controlling for the individual characteristics and family influences. This suggests that the predictive power of students who had friends who use drugs and students who had friends who encouraged them to use drugs are shared with the individual characteristics and family influences. In other words, we should control these individual characteristics and family influences in order to adequately account for the effect of friends' use of drugs and friends' encouragement of drug use.

Table 6.11 reports OLS regression of students' social tolerance for personal use of drugs on the individual characteristics, family influence, and drug environment predictors in the model. The model shows the following major influences on students' social tolerance for personal use of drugs: (1) four individual characteristics: students' grades in junior high school, ethnicity, academic achievement, interaction with major teachers; (2) one

Table 6.11 Unstandardized and Standardized Coefficients for OLS Regression of Students' Social Tolerance for Personal Use of Drugs on Selected Individual Characteristics, Family Influence, and Drug Environment Variables

Independent Variables	Unstandardized Coefficients	Standardized Coefficients
Individual Characteristics		
Grade in Junior High School		
First Grade	-.34+ (.18)	-.09+
Second Grade	-.54** (.17)	-.15**
Third Grade	contrast	contrast
Gender		
Male	contrast	contrast
Female	.17 (.14)	.05
Ethnicity		
Min-Nanese	contrast	contrast
Native	-.24 (.33)	-.03
Mainlander	-.11 (.18)	-.03
Hakka	-.01 (.26)	-.01
Other	-.42+ (.24)	-.08+
Academic Achievement	-.19+ (.11)	-.07+
Interaction with Teachers	-.28* (.14)	-.08*
Family Influences		
Living Arrangements		
Live with Both Parents	contrast	contrast
Live with Father	.83** (.29)	.11**
Live with Mother	.04 (.29)	.01
Mothers' Religious Affiliation		
Buddhist	-.24 (.20)	-.07
Christian	-.08 (.31)	-.01
Taoist	-.53 (.34)	-.08
Other Religious Affiliation	-.35 (.34)	-.05
No Religious Affiliation	contrast	contrast
Weekly Allowance	.15 (.10)	.06
Monthly Family Income	-.16 (.37)	-.02

(table cont.)

Independent Variables	Unstandardized Coefficients	Standardized Coefficients
Family Influences		
Fathers' Education		
Elementary School	.22 (.22)	.05
Junior High School	.10 (.22)	.02
Senior High School	contrast	contrast
College or Above	.02 (.17)	.01
Drug Environment		
Relatives' Use of Drugs		
Yes	.04 (.40)	.01
No	contrast	contrast
Classmates' Use of Drugs		
Yes	.52 (.44)	.06
No	contrast	contrast
Friends' Use of Drugs		
Yes	.51+ (.31)	.07+
No	contrast	contrast
Classmates Who Encouraged Drug Use		
Yes	-.44 (.92)	-.02
No	contrast	contrast
Friends Who Encouraged Drug Use		
Yes	1.78* (.79)	.11*
No	contrast	contrast
(Constant)		4.64**
Largest Variance Inflation Factor (VIF)		1.94
R^2		.10
Adjusted R^2		.06
Number of Students		602

**p<.01 *p<.05 +p<.10
Note: Standard errors are in parentheses.

family influence: living arrangements; and (3) two drug environment conditions: friends' use of drugs and friends' encouragement for drug use. When we compare Table 6.11 with Table 6.3, the effect of the first and second grade students, academic achievement, and interaction with major teachers remains statistically significant. Also, the "other" category in the ethnic group becomes statistically significant. The contribution of the first grade variable, however, shrinks by about 36%, but the second grade variable increases about 114%, and academic achievement remains the same, while interaction with major teachers shrinks by about 11%, controlling for the family influences and drug environment.

When we compare Table 6.11 with Table 6.5, the effect of living arrangements remains statistically significant. However, mothers' religious affiliation and weekly allowance are no longer statistically significant. The contribution of living with father remains the same, controlling for the individual characteristics and drug environment.

When we compare Table 6.11 with Table 6.8, the effect of friends' use of drugs and friends' encouragement for drug use remain statistically significant. The contribution of friends use of drugs variables, however, shrinks by about 11%, and friends who encouraged drug use variable remains the same, controlling for the individual

characteristics and family influences. However, the predictive power of the students who had friends who encouraged them to use drugs is not shared with the individual characteristics and family influences. This suggests that we only need to control other relevant drug environment factors for accounting for the effect of the students who had friends who encouraged them to use drugs.

Table 6.12 reports OLS regression of students' attitudes toward legalization of use of drugs on the individual characteristics, family influence, and drug environment predictors in the model. The model shows that the students who had friends who encouraged them to use drugs was the only variable to influence their attitudes toward legalization of use of drugs. When we compare Table 6.12 with Table 6.9, the effect of the students who had friends who encouraged them to use drugs remains statistically significant. The contribution of the grade variable remains the same, controlling for the individual characteristics and family influences. This suggests that the predictive power of the students who had friends who encouraged them to use drugs is not shared with the individual characteristics and family influences. That is, we only need to control other relevant drug environment factors in order to account for the effect of the students who had friends who encouraged them to use drugs.

Table 6.12 Unstandardized and Standardized Coefficients for OLS Regression of Students' Attitudes toward Legalization of Use of Drugs on Selected Individual Characteristics, Family Influence, and Drug Environment Variables

Independent Variables	Unstandardized Coefficients	Standardized Coefficients
Individual Characteristics		
Grade in Junior High School		
First Grade	-.11 (.18)	-.03
Second Grade	-.11 (.17)	-.03
Third Grade	contrast	contrast
Gender		
Male	contrast	contrast
Female	.19 (.14)	.06
Ethnicity		
Min-Nanese	contrast	contrast
Native	-.17 (.33)	-.02
Mainlander	-.20 (.18)	-.05
Hakka	-.10 (.26)	-.02
Other	.04 (.24)	.01
Academic Achievement	.07 (.11)	.03
Interaction with Teachers	-.11 (.14)	-.03
Family Influences		
Living Arrangements		
Live with Both Parents	contrast	contrast
Live with Father	.17 (.29)	.02
Live with Mother	.39 (.29)	.06
Mothers' Religious Affiliation		
Buddhist	-.05 (.20)	-.01
Christian	.44 (.31)	.07
Taoist	-.01 (.34)	-.01
Other Religious Affiliation	.11 (.34)	.01
No Religious Affiliation	contrast	contrast
Weekly Allowance	.01 (.10)	.01
Monthly Family Income	-.43 (.37)	-.05

(table cont.)

Independent Variables	Unstandardized Coefficients	Standardized Coefficients
Family Influences		
Fathers' Education		
Elementary School	.19 (.22)	.04
Junior High School	-.10 (.22)	-.02
Senior High School	contrast	contrast
College or Above	-.13 (.17)	-.04
Drug Environment		
Relatives' Use of Drugs		
Yes	.11 (.40)	.01
No	contrast	contrast
Classmates' Use of Drugs		
Yes	.59 (.43)	.07
No	contrast	contrast
Friends' Use of Drugs		
Yes	-.06 (.31)	-.01
No	contrast	contrast
Classmates Who Encouraged Drug Use		
Yes	1.07 (.92)	.06
No	contrast	contrast
Friends Who Encouraged Drug Use		
Yes	2.47** (.79)	.16**
No	contrast	contrast
(Constant)		4.00**
Largest Variance Inflation Factor (VIF)		1.93
R^2		.08
Adjusted R^2		.04
Number of Students		603

**p<.01 *p<.05 +p<.10
Note: Standard errors are in parentheses.

Table 6.13 reports the logistic regression of students who ever thought about personal use of drugs on two models: one is on the individual characteristics and family influences; the other is on the individual characteristics, family influence, and drug environment predictors in the model. Model 1 shows that native Taiwanese students, interaction with major teachers, and students who had Buddhist mothers were the major influences on the students who ever thought about personal use of drugs. When we compare model 1 in Table 6.13 with Table 6.4, the effect of the ethnicity and interaction with major teachers remains statistically significant. The contribution of the native Taiwanese variable, however, shrinks by about 21%, controlling for family influences. The contribution of interaction with major teachers variables, however, increases by about 3%, controlling for family influences.

When we compare model 1 with Table 6.6, the effect of mothers' religion remains statistically significant. The contribution of Buddhist mothers, however, increases about 8%, controlling for the individual characteristics.

When we compare model 2 with Table 6.4, the effect of interaction with major teachers remains statistically significant. The contribution of interaction with the major teachers variable remains almost the same, controlling for the family influences and drug environment.

Table 6.13 Logistic Regression of Students Who Ever Thought about Using Drugs on Selected Individual Characteristics, Family Influence, and Drug Environment Variables

Independent Variables	Model 1 Coeff.	S.E.	Model 2 Coeff.	S.E.
Individual Characteristics				
Grade in Junior High School				
First Grade	-.47	(.46)	-.57	(.48)
Second Grade	-.24	(.42)	-.77	(.50)
Third Grade	contrast		contrast	
Gender				
Male	contrast		contrast	
Female	.59	(.37)	.62	(.41)
Ethnicity				
Min-Nanese	contrast		contrast	
Native	1.51*	(.55)	.82	(.69)
Mainlander	-.17	(.51)	.02	(.54)
Hakka	-.94	(1.06)	-.75	(1.08)
Other	.39	(.60)	.28	(.68)
Academic Achievement	-.15	(.31)	-.18	(.34)
Interaction with Teachers	-.73*	(.38)	-.68+	(.41)
Family Influences				
Living Arrangements				
Live with Both Parents	contrast		contrast	
Live with Father	-1.33	(1.09)	-.99	(1.10)
Live with Mother	-.08	(.64)	.23	(.65)
Mothers' Religion				
Buddhist	-.92*	(.46)	-.82	(.51)
Christian	.21	(.66)	-.10	(.72)
Taoist	-1.07	(.87)	-.68	(.90)
Other Religion	-7.13	(16.43)	-7.70	(26.70)
No Religious Affiliation	contrast		contrast	
Weekly Allowance	.25	(.21)	-.03	(.28)
Monthly Family Income	.47	(.70)	.42	(.74)

(table cont.)

Independent Variables	Model 1 Coeff.	S.E.	Model 2 Coeff.	S.E.
Family Influences				
Fathers' Education				
Elementary School	.48	(.49)	.55	(.52)
Junior High School	.09	(.55)	-.52	(.71)
Senior High School	contrast		contrast	
College or Above	-.35	(.49)	-.51	(.53)
Drug Environment				
Relatives' Use of Drugs				
Yes	___		1.02	(.91)
No			contrast	
Classmates' Use of Drugs				
Yes	___		-13.29	(39.08)
No			contrast	
Friends' Use of Drugs				
Yes	___		-1.30	(1.19)
No			contrast	
Classmates Who Encouraged Drug Use				
Yes	___		9.85	(27.30)
No			contrast	
Friends Who Encouraged Drug Use				
Yes	___		25.59	(61.34)
No			contrast	
(Constant)	-.68		-.53	
-2 Log Likelihood	247.00		283.64	
Number of Students	603		603	

**p<.01 *p<.05 +p<.10
Note: Standard errors are in parentheses.

In summary, three OLS regressions of students' social tolerance for use of drugs by their friends, students' social tolerance for personal use of drugs, and students' attitudes toward legalization of use of drugs, and two logistic regressions of students who ever thought about personal use of drugs on individual characteristics, family influences, and drug environment were presented in this section. Grade in school, friends' use of drugs, and friends' encouragement for drug use were the important predictors for students' social tolerance for use of drugs by their friends. Grade in school, ethnicity, academic achievement, interaction with teacher, living arrangements, friends' use of drugs, and friends' encouragement for drug use were the major predictors for students' social tolerance for personal use of drugs. Friends' encouragement for drug use was the only good predictor for students' attitudes toward legalization of use of drugs. Finally, the only significant predictor for students who ever thought about personal use of drugs was the interaction with major teachers.

6.4. The Results of Factor Analysis

The results of factor analysis of social tolerance for use of drugs is presented in Table 6.14. The table shows that all four social tolerance for use of drug variables, social tolerance for use of drugs by friends, social tolerance for personal use of drugs, perception of

Table 6.14 Factor Loadings for Items Included in Principal Components Analysis of Students' Social Tolerance for Use of Drugs

Factor and Items	Factor Loading
Social Tolerance for Use of Drugs	
Social Tolerance for Use of Drugs by Friends	.70
Social Tolerance for Personal Use of Drugs	.67
Legalization of Use of Drugs	.67
Thoughts about Personal Use of Drugs	.67

Factor	Eigenvalue	Percent of Variance Explained
Social Tolerance for Use of Drugs	1.84	45.9%

legalization of use of drugs, and thoughts about personal use of drugs, are located in one factor. This is evidence that these four variables all contribute to the concept of social tolerance for use of drugs. Also, the result gives statistical support for making these four variables into a scale of social tolerance for drug use. Thus, this new scale of social tolerance for drug use can be used as a new dependent variable to examine the relationships between students' social tolerance for drug use and their individual, family, and drug environment influences.

In order to make this new scale of social tolerance for drug use from the four dependent variables, two of them were weighted to make all of these four variables receive equal weight in the score. Therefore, the students' attitudes toward legalization of use of drugs variable was weighted 1.5 times for each score to be the same as the score of social tolerance for use of drugs by friends and social tolerance for personal use of drugs variables. Also, the variable, thoughts about personal use of drugs, was weighted 9 times, because the variable came from one question for all three types of drugs for receiving two scores, 1 and 2, not like each of the first two variables which contained three questions for each of the three drugs and with a scale from 1 to 6.

Table 6.15 presents the OLS regression of students' social tolerance for drug use on individual

Table 6.15 Unstandardized and Standardized Coefficients for OLS Regression of Students' Social Tolerance for Drug Use on Selected Individual Characteristic Variables

Independent Variables	Unstandardized Coefficients	Standardized Coefficients
Grade in Junior High School		
First Grade	-2.12** (.66)	-.15**
Second Grade	-1.35* (.64)	-.10*
Third Grade	contrast	contrast
Gender		
Male	contrast	contrast
Female	.86+ (.52)	.07+
Ethnicity		
Min-Nanese	contrast	contrast
Native	3.02* (1.16)	.11*
Mainlander	-.49 (.65)	-.03
Hakka	-.88 (.96)	-.04
Other	-.80 (.90)	-.04
Academic Achievement	-.44 (.42)	-.04
Interaction with Teachers	-1.17* (.53)	-.09*
(Constant)		27.78**
Largest Variance Inflation Factor (VIF)		1.44
R^2		.05
Adjusted R^2		.04
Number of Students		603

**p<.01 *p<.05 +p<.10
Note: Standard errors are in parentheses.

characteristics: grade in school, gender, ethnicity, academic achievement, and interaction with major teachers. The table shows that the first and second grade students reported significantly less tolerance for drug use than the third grade students, controlling for other individual characteristic predictors (Hypothesis 1). Female students were significantly more likely to be tolerant for use of drugs than male students (Hypothesis 2). Native Taiwanese students reported significantly higher tolerance for drug use than Min-Nanese students (Hypothesis 3). Students with more interaction with major teachers were significantly less likely to be tolerant for use of drugs (Hypothesis 5). Finally, only academic achievement (Hypothesis 4) had no significant effect on social tolerance for drug use.

Table 6.16 presents the results of OLS regression of students' social tolerance for drug use on family influences, living arrangements, mothers' religious affiliation, weekly allowance, monthly family income, and fathers' education. The table shows that no family influences significantly affected students' social tolerance for drug use.

Table 6.17 presents the results of OLS regression of students' social tolerance for drug use on drug environment characteristics, relatives', classmates', and friends' use of drugs and classmates and friends who encouraged students to use drugs. The results show that students who had

Table 6.16 Unstandardized and Standardized Coefficients for OLS Regression of Students' Social Tolerance for Drug Use on Selected Family Influence Variables

Independent Variables	Unstandardized Coefficients		Standardized Coefficients
Living Arrangements			
Live with Both Parents	contrast		contrast
Live with Father	1.15	(1.12)	.04
Live with Mother	.98	(1.08)	.04
Mothers' Religious Affiliation			
Buddhist	-1.12	(.74)	-.08
Christian	1.07	(1.15)	.04
Taoist	-1.91	(1.26)	-.07
Other Religious Affiliation	-.83	(1.29)	-.07
No Religious Affiliation	contrast		contrast
Weekly Allowance	.49	(.37)	.05
Monthly Family Income	-.73	(1.43)	-.02
Fathers' Education			
Elementary School	1.29	(.80)	.07
Junior High School	-.08	(.82)	-.01
Senior High School	contrast		contrast
College or Above	-.88	(.65)	-.07
(Constant)			24.37**
Largest Variance Inflation Factor (VIF)			1.88
R^2			.03
Adjusted R^2			.01
Number of Students			603

**p<.01 *p<.05 +p<.10

Note: Standard errors are in parentheses.

Table 6.17 Unstandardized and Standardized Coefficients for OLS Regression of Students' Social Tolerance for Drug Use on Selected Drug Environment Variables

Independent Variables	Unstandardized Coefficients		Standardized Coefficients
Relatives' Use of Drugs			
Yes	.92	(1.40)	.03
No	contrast		contrast
Classmates' Use of Drugs			
Yes	.82	(1.55)	.02
No	contrast		contrast
Friends' Use of Drugs			
Yes	1.37	(1.09)	.05
No	contrast		contrast
Classmates Who Encouraged Drug Use			
Yes	5.00	(3.28)	.07
No	contrast		contrast
Friends Who Encouraged Drug Use			
Yes	16.92**	(2.79)	.28**
No	contrast		contrast
(Constant)			23.34**
Largest Variance Inflation Factor (VIF)			1.49
R^2			.13
Adjusted R^2			.13
Number of Students			603

**p<.01 *p<.05 +p<.10
Note: Standard errors are in parentheses.

friends who encouraged them to use drugs reported significantly more tolerance for drug use (Hypothesis 15). Relatives' use of drugs (Hypothesis 11), classmates' use of drugs (Hypothesis 12), students who had friends who used drugs (Hypothesis 13), and classmates who encouraged drug use (Hypothesis 14) had no significant affect on social tolerance for drug use.

Table 6.18 reports OLS regression of students' social tolerance for drug use on the individual characteristics, family influence, and drug environment predictors in the model. The model shows that two individual characteristics, students' grade in high school and interaction with major teachers, and two drug environment conditions, students who had classmates and friends who encouraged them to use drugs were the major influences on students' social tolerance for use of drugs by their friends. When we compare Table 6.18 with Table 6.15, the effect of the first and second grade students remains statistically significant. The contribution of first and second grade variables, however, shrinks by about 20% and increases by about 10% with introduction of the family influences and drug environment. This suggests that the predictive power of being the first and second grade students is shared with the family influences and drug environment. In other words, we should control these family influences and drug environment in order to

Table 6.18 Unstandardized and Standardized Coefficients for OLS Regression of Students' Social Tolerance for Drug Use on Selected Individual Characteristics, Family Influence, and Drug Environment Variables

Independent Variables	Unstandardized Coefficients		Standardized Coefficients
Individual Characteristics			
Grade in Junior High School			
First Grade	-1.62**	(.64)	-.12**
Second Grade	-1.48*	(.61)	-.11*
Third Grade	contrast		contrast
Gender			
Male	contrast		contrast
Female	.69	(.49)	.05
Ethnicity			
Min-Nanese	contrast		contrast
Native	-.12	(1.16)	-.01
Mainlander	-.61	(.66)	-.04
Hakka	-.66	(.93)	-.03
Other	-.42	(.24)	-.08
Academic Achievement	-.39	(.41)	-.04
Interaction with Teachers	-.98*	(.51)	-.08*
Family Influences			
Living Arrangements			
Live with Both Parents	contrast		contrast
Live with Father	1.53	(1.04)	.06
Live with Mother	1.08	(1.04)	.04
Mothers' Religious Affiliation			
Buddhist	-.92	(.70)	-.07
Christian	.94	(1.09)	.04
Taoist	-1.12	(1.20)	-.04
Other Religious Affiliation	-1.03	(1.21)	-.04
No Religious Affiliation	contrast		contrast
Weekly Allowance	.01	(.36)	.01
Monthly Family Income	-.50	(1.33)	-.01

(table cont.)

Independent Variables	Unstandardized Coefficients	Standardized Coefficients
Family Influences		
Fathers' Education		
Elementary School	.76 (.77)	.04
Junior High School	-.63 (.78)	-.04
Senior High School	contrast	contrast
College or Above	-.55 (.62)	-.04
Drug Environment		
Relatives' Use of Drugs		
Yes	.72 (1.44)	.02
No	contrast	contrast
Classmates' Use of Drugs		
Yes	1.07 (1.56)	.03
No	contrast	contrast
Friends' Use of Drugs		
Yes	.84 (1.12)	.03
No	contrast	contrast
Classmates Who Encouraged Drug Use		
Yes	5.46+ (3.30)	.08+
No	contrast	contrast
Friends Who Encouraged Drug Use		
Yes	16.37** (2.83)	.27**
No	contrast	contrast
(Constant)		27.81**
Largest Variance Inflation Factor (VIF)		1.94
R^2		.18
Adjusted R^2		.15
Number of Students		602

**p<.01 *p<.05 +p<.10
Note: Standard errors are in parentheses.

adequately account for the effect of being first grade students.

When we compare Table 6.18 with Table 6.17, the effect of classmates' encouragement for drug use becomes statistically significant. Also, the effect of friends' encouragement for drug use remain statistically significant. The contribution of friends who encouraged drug use variable, however, shrinks by about 4%.

In summary, all of the individual characteristics, except academic achievement, significantly affected social tolerance for drug use. All of the family factors had no significant influence on social tolerance for drug use. Friends who encouraged drug use was the only factor among drug environment that affected social tolerance for drug use. Finally, the results of the last regression model of this study indicated that grade in junior high school, interaction with major teachers, classmates who encouraged drug use, and friends who encouraged drugs were the major predictors for students' social tolerance for drug use. These are the results of the analyses of the data. In the next chapter, I will discuss the findings of this study.

CHAPTER 7

DISCUSSION AND CONCLUSIONS

This study explores some interesting aspects of social tolerance for drug use which go beyond my expectations before the study was conducted. Many of the hypotheses are supported by the data which were collected from students in Taipei, Taiwan; other hypotheses failed to be supported by the data. These findings are discussed in the first section of this chapter. The findings which support the concepts of social tolerance and anomie, socialization, social control, and differential association theories, the implications for Taiwan society/drug use among youths, and recommendations for further research in this field are discussed in the final section.

7.1. Discussion

The results of this study show that a big difference exists between social tolerance for drug use by students and by their friends. Students are nearly 30% more likely to tolerate their friends' use of drugs than their own use of drugs. This finding could have two meanings. It could mean that students show greater self-control for drug use than for peers' influences. Or it could mean that students are less likely to care about their friends' deviant behaviors than about their own. In other words, positive peer pressure (friends do not let friends use drugs) is weakening in today's society. This is also evidence in

favor of social control theory, which explains that weak attachments to conventional peers make persons less likely to take their friends into account when they commit deviant behaviors.

The major inconsistency between my assumptions and one of the results of the study is that students show little differences among amphetamines, heroin, and marijuana in the issues of social tolerance for their use, perceptions of them, and attitudes toward them. In response to this phenomenon, my interpretation is that students treat any type of drugs as "drugs," which in its Chinese meaning is translated as "poison goods." This simplification of a large number of drugs into just one term of "drugs" is very useful when conducting drug education and anti-drug programs.

The results of the analyses of the relationships between social tolerance for drug use: social tolerance for drug use by students and by their friends, perceptions of legalization of use of drugs, and thoughts about personal use of drugs, and individual characteristics, family influences, and drug environment indicate support for many of the hypotheses of this study. These relationships are discussed for each of the hypotheses which are included in the following section.

Individual Characteristic Hypotheses: The first individual characteristic hypothesis of this study

supported by the data is that students in lower grades, especially the first grade students, had a lower degree of social tolerance for use of drugs by both their friends and themselves than the third grade students (Hypothesis 1). This is evidence for socialization theory, that the effects of socialization of traditional values and attitudes decline as the students get older and go to higher grades. Students in higher grades are more likely to have different opinions, sometimes conflicting with traditional values and norms, than students in lower grades. This is a popular way to express their unique status and roles in schools. The effects of school socialization, such as education against the use of drugs, are likely to be less among students in higher grades. Meanwhile, Zhou (1994) pointed out that students in higher grades had higher drug use rates in Taiwan. If this finding is compared to Zhou's study, it provides evidence for the assertion that greater tolerance for drugs may lead to more use of drugs. Also, higher grade students were usually more likely to be older students. That is, this finding substantiates one of the criminal facts that Lin (1993) pointed out: older juveniles, usually in higher grades, commit more crimes in Taiwan. Also, there is a linkage between social tolerance for deviant behaviors and the likelihood to commit these behaviors. That is, the more people tolerate deviant

behaviors, the more likely they are to commit these behaviors.

The second finding, which is opposite to Hypothesis 2 of the individual characteristic hypotheses, is that female students were significantly more likely to have ever thought about using drugs and to have a higher tolerance for drug use than male students. Although female students are traditionally socialized to be more obedient and not to become involved in deviant behavior, female students may change drug use action into drug use imagination. Thus, the female students reported more thoughts about personal use of drugs, even though they have been strongly socialized not to use drugs.

The third finding, which is opposite to Hypothesis 3 of the individual characteristic hypotheses, is that native Taiwanese students were significantly more likely to have ever thought about using drugs and higher tolerance for drug use than Min-Nanese students. Native Taiwanese students usually have poorer academic achievement than other ethnic groups in Taiwan. This factor might contribute to the native Taiwanese students as a unique case of the ethnic group hypothesis.

The fourth individual characteristic hypothesis of this study supported by the data is that poor academic achievement students had a higher degree of social tolerance for personal use of drugs than higher achieving

students (Hypothesis 4). This evidence supports the socialization theory that good students are more socialized not to be involved in or tolerate deviant behavior such as drug use.

The fifth individual characteristic hypothesis of this study supported by the data is that students who had more frequent interaction with major teachers had a lower degree of social tolerance for personal use of drugs and were less likely to have ever thought about using drugs than students who had little interaction with major teachers (Hypothesis 5). This is support for social control theory that attachment to major teachers makes students less likely to tolerate personal use of drugs.

Family Influence Hypotheses: The first hypothesis about family influences supported by the models is that students who lived with only their father had a higher degree of social tolerance for use of drugs by themselves than students who lived with both parents (Hypothesis 6). Mothers usually have the major parental role to spend time with children in Taiwanese families. Therefore, students who lived without them lost major attachment to family. Attachment to family is an important social bond which helps students in Taipei to avoid this deviant behavior. This finding lends empirical verification to Nye (1958) and Hirschi's (1969) social control theory. It is also highly consistent with one of the results of Ross' (1995) teenage

drug abuse study in Taiwan that an "intact and healthy" family is the major factor influencing youths not to use drugs.

Another family influence hypothesis supported by the data is that students who had Taoist mothers had a lower degree of social tolerance for personal use of drugs than students who had mothers who had no religious affiliation (Hypothesis 7). Also, students who had Buddhist mothers were more likely to have ever thought about using drugs than students who had mothers with no religious affiliation. This study finds that students' religious affiliation is highly correlated with and influenced by mothers' religious affiliation. This is a unique finding because few of the previous juvenile drug use studies in Taiwan recognized the religion factor as an important variable influencing the prevalence of drug abuse and attitudes toward drugs. Two reasons may contribute to the ignorance of the religion factor in many studies in this country. One is that Taiwan is not considered a very religious country and people have maximum freedom in choosing their religious affiliations. The rate of religious belief was generally not believed to be high, especially among students in Taiwan. I was surprised that 75% of students in this study reported that they had a religious affiliation. I had expected fewer than half of the students in Taiwan would declare a religious

affiliation. The other reason is that religious institutions are recognized as sponsors of treatment facilities for addicts, but the institutes themselves are not agents to prevent drug use. Previous studies have overlooked the power of religious affiliation on influencing people before they use drugs.

The other family influence hypothesis supported by this research is that students who had more allowance had a higher degree of social tolerance for their personal use of drugs (Hypothesis 4). This finding is similar to Ross' (1995) results, in that the more allowance youths have, the higher their rates of drug abuse behaviors. Taiwan experienced dramatic increases in economic growth in the past decades. Many parents spent too much time on their business and gave more allowance to their children in compensation for not spending time with them. The dramatic increases in students' allowances year after year contribute to the state of anomie in this group of people. Because of this factor of anomie, which is the result of a major change in financial power, students are increasingly tolerant of different behaviors available to them now due to their increasing financial power. This finding provides a link between a macro theory--anomie theory--and an individual's behavior--tolerating the use of drugs.

The final family influence hypothesis supported by the data is that students who had fathers who only graduated

from elementary school were more likely to have ever thought about using drugs than students who had fathers who only graduated from senior high school (Hypothesis 10). Contrasting Lee's (1993) finding that whether students used or did not use drugs was not significantly influenced by their fathers' educational levels, this study finds that one of the fathers' educational levels, which is elementary school, was significantly different from the senior high school fathers group for students who ever thought about using drugs. Lower education is generally associated with lower social class. Therefore, this finding suggests that students who were from these lower social class families were more likely to have ever thought about using drugs. This is also evidence of socialization theory that children from lower class families were socialized to different attitudes toward use of drugs.

Drug Environment Hypotheses: Two hypotheses about drug environment influences are supported by the data. One is that students who had friends who used drugs had a higher degree of social tolerance for drug use by both their friends and themselves than students who had no friends who used drugs (Hypothesis 13). Another is that students who had friends who encouraged them to use drugs had a higher degree of social tolerance for drug use by both their friends and themselves than students who had no friends who used drugs (Hypothesis 15). Also, students who

had friends who encouraged them to use drugs were more likely to favor legalization of use of drugs than students who had no friend who encouraged them to use drugs. There is a Chinese saying: "they will be red who are close to ruby; they will be black who are close to carbon." Students with such friends were very strongly influenced by their friends' attitudes and values toward drugs. These friends usually provided good reasons and skills for using drugs. Furthermore, friends usually have difficulty in rejecting friends' invitations for participation during this junior high school period. Such friends increased greatly the chance for students to be more tolerant of drug use. These findings also offer very strong support for the differential association theory that students' social tolerance for drug use and attitudes about legalization of drugs is learned from their friends.

Hypotheses Which Failed to Be Supported by the Data: The individual hypotheses for social tolerance for drug use by students' friends that failed to be supported by the data are: gender (Hypothesis 2), ethnicity (Hypothesis 3), academic achievement (Hypothesis 4), and interaction with major teachers (Hypothesis 5). The individual hypotheses for social tolerance for personal use of drugs that failed to be supported by the data are: gender (Hypothesis 2) and ethnicity (Hypothesis 3). All of the individual hypotheses for students' perceptions of legalization of use of drugs

failed to be supported by the data. They are: grade in school (Hypothesis 1), gender (Hypothesis 2), ethnicity (Hypothesis 3), academic achievement (Hypothesis 4), and interaction with major teachers (Hypothesis 5). The individual hypotheses for students who ever thought about using drugs that failed to be supported by the data are: grade in school (Hypothesis 1), and academic achievement (Hypothesis 4).

All of the family influence hypotheses for social tolerance for drug use by students' friends failed to be supported by the data. They are: living arrangements (Hypothesis 6), mothers' religious affiliation (Hypotheses 7), weekly allowance (Hypothesis 8), monthly family income (Hypothesis 9), and fathers' education (Hypotheses 10). The family influence hypotheses for social tolerance for personal use of drugs that failed to be supported by the data are: monthly family income (Hypothesis 9), and fathers' education (Hypotheses 10). All of the family influence hypotheses for perceptions of legalization of use of drugs failed to be supported by the data. The family influence hypotheses for students who ever thought about using drugs that failed to be supported by the data are: living arrangements (Hypothesis 6), weekly allowance (Hypothesis 8), and monthly family income (Hypothesis 9).

The drug environment hypotheses for social tolerance for drug use by both students and their friends that failed

to be supported by the data are: relatives' use of drugs (Hypothesis 11), classmates' use of drugs (Hypothesis 12), and classmates who encouraged drug use (Hypothesis 14). The drug environment hypotheses for students' perceptions of legalization of use of drugs that failed to be supported by the data are: relatives' use of drugs (Hypothesis 11), classmates' use of drugs (Hypothesis 12), friends' use of drugs (Hypothesis 13), and classmates who encouraged drug use (Hypothesis 14). All of the drug environment hypotheses for students' perceptions of legalization of use of drugs failed to be supported by the data. They are: relatives' use of drugs (Hypothesis 11), classmates' use of drugs (Hypothesis 12), friends' use of drugs (Hypothesis 13), classmates who encouraged drug use (Hypothesis 14), and friends who encouraged drug use (Hypothesis 15).

The Full Models: The results of the full model of students' social tolerance for use of drugs by their friends show that grade in school, friends' use of drugs, and friends who encouraged drug use are important factors among individual characteristics, family influences, and drug environment that influence students' social tolerance for use of drugs by their friends. This suggests that both socialization and differential association theories offer good explanations for this integrated model.

The results of the full model of students' social tolerance for personal use of drugs show that grade in

school, academic achievement, interaction with major teachers, living arrangements, friends' use of drugs, and friends who encouraged drug use are important factors among individual characteristics, family influences, and drug environment that influence students' social tolerance for personal use of drugs. This suggests that all the four theories, socialization, social control, anomie, and differential association theories, offer good explanations for this integrated model.

The results of the full model of students' perceptions of legalization of use of drugs show that friends who encouraged drug use is the only important factor among individual characteristics, family influences, and drug environment that influences students' perceptions of legalization of use of drugs. This suggests that only differential association theory offers a good explanation for this integrated model.

The results of the full model of students who ever thought about using drugs show that ethnicity, interaction with major teachers, and mothers' religious affiliation are important factors among individual characteristics, family influences, and drug environment that influence students' social tolerance for use of drugs by their friends. This suggests that both socialization and social control theories offer good explanations for this integrated model.

In summary, this study finds that the students were more likely to tolerate use of drugs by their friends than by themselves. The three drugs surveyed, amphetamines, heroin, and marijuana, were not differentiated by the students. Hypotheses for students' social tolerance for personal use of drugs received the most support from these data. The students' social tolerance for personal use of drugs model was also the only full model which provided evidence for all of the four theories which guided this study.

7.2. Conclusions

As a guide for this study, the concept of social tolerance and its relevant theories, such as anomie, socialization, social control, and differential association theories, offer a different view to look at the drug use problem in Taipei, Taiwan. Under the assumption from anomie theory that social tolerance for drug use is dramatically increasing in Taiwan, this study explored the degree of social tolerance for drug use by junior high school students in Taipei, Taiwan, and their friends. By applying anomie, socialization, social control, and differential association theories, I also examined a large number of relationships between individual characteristics, family influences, and drug environment, and social tolerance for personal and friends' use of drugs. I found that some of the factors made important contributions to

these theories in their explanations of social tolerance for drug use. This research has produced many valuable results and several suggestions for further studies.

First, the "good old days" when there was almost no tolerance for drug use in Taiwan are over, because the state of anomie already exists; evidence for it comes from increasing social tolerance for drug use especially among young people. Nowadays, students might have a higher degree of social tolerance for use of drugs than before; we need to note this trend of increasing tolerance for drug use. Tracking this trend of increasing social tolerance for drug use can contribute to our understanding of juveniles' attitudes toward drugs and help us to predict drug use rates. Because this study is the first one conducted in this area, it is impossible to accurately compare it to the situations which have happened before. This study, however, can be used to compare precisely with later studies. If similar studies are conducted annually, they will provide very valuable data for tracking trends.

Second, drug education can be more effective if it is hosted by major teachers at the first and second grades in junior high schools. The results of this study show that the students in the first and second grades in junior high schools and the students who had more frequent interaction with major teachers were less tolerant for use of drugs. This suggests that the attitude toward drug use of this

group of students may still be strongly influenced by the amount of emphasis placed on the harmful effects of drug use through the drug education provided directly by their major role models, such as the major teachers.

Third, peer influences are among the most important factors influencing social tolerance of drugs. This study shows that students were much more likely to tolerate their friends' use of drugs than their own use. Also, students who had classmates and friends who encouraged them to use drugs were more likely to have a higher degree of social tolerance for use of drugs. In regards to drug prevention policy implications, this finding suggests that parents and teachers need to spend more time on knowing their children's and students' friends' and classmates' exposure to and attitudes toward drugs. Once parents and teachers become aware of and discourage this drug use connection, they prevent their children and students from exposure to the major drug environment. The theoretical implication of this finding suggests that differential association theory offers a good explanation for drug use attitudes.

Fourth, the findings which are opposite to Hypotheses 2 and 3 of the individual characteristic hypotheses indicate that both female and native Taiwanese students were significantly more likely to have ever thought about personal use of drugs than male and Min-Nanese students. Although this might be due to female students'

transformation of drug use action into drug use imagination, further studies may need to explore how this transformation occurred. Also, drug prevention programs for students of different gender and ethnic groups might need to be designed differently because of gender and ethnic group differences.

Fifth, with the small number of students who agreed with legalization of drug use, the legal system, which deals with controlling the drug problems, should continue to take severe methods to fight the "Drug War." While some experts are arguing in favor of no punishment for use of drugs or legalization of use of drugs, the results of this study can offer a reference for the reassessment of laws regarding drug use.

Sixth, this study is limited to only one group of people, namely, junior high school students in Taipei, Taiwan. It is believed that other social groups, such as senior high school students, college students, or people in other cities or countries, may display different aspects of social tolerance for drug use. The exploration of these aspects may largely improve the building of the theory of social tolerance.

Finally, this study integrates four theories, which are socialization, social control, anomie, and differential association theories, to explore four social tolerance for drug use models: students' social tolerance for use of

drugs by themselves and their friends respectively, their perceptions of legalization of use of drugs, and thoughts about personal use of drugs. While all of these four theories help to explain the relationships between students' individual characteristics, family influences, and drug environment and their social tolerance for personal use of drugs, parts of these theories contribute to the explanation of the relationships among the other three models. Both socialization and differential association theories contribute to explaining social tolerance for use of drugs by students' friends. Differential association theory is the only theory that contributes to explaining students' perceptions of legalization of use of drugs. Both socialization and social control theories contribute to explaining students' thought about personal use of drugs. Finally, studies may gain a more comprehensive understanding of the factors that influence social tolerance for drug use by using an integrated theory approach, containing elements of socialization theory, social control theory, and differential association theory.

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APPENDIX A

QUESTIONNAIRE

A. Attitudes Toward Drugs:

1. On a scale from 1-6, to what extent do you approve of your friends using amphetamines (also known as "ice," "am," "prince am," "su-bee," or "salt"); where 1 = the lowest level of approval and 6 = the highest level of approval? Please circle the number which best indicates your response on the scale.

	Low approval.					High approval.
Scale:	1	2	3	4	5	6

2. On a scale from 1-6, to what extent do you approve of your friends using heroin (also known as "white powder" or "black carbon"); where 1 = the lowest level of approval and 6 = the highest level of approval? Please circle the number which best indicates your response on the scale.

	Low approval.					High approval.
Scale:	1	2	3	4	5	6

3. On a scale from 1-6, to what extent do you approve of your friends using marijuana (also known as "reefer," "mugglers," "tea," "gauge," "Mary Jane," "weed," "grass," or "pot"); where 1 = the lowest level of approval and 6 = the highest level of approval? Please circle the number which best indicates your response on the scale.

	Low approval.					High approval.
Scale:	1	2	3	4	5	6

4. On a scale from 1-6, to what extent do you approve of yourself using amphetamines; where 1 = the lowest level of approval and 6 = the highest level of approval? Please circle the number which best indicates your response on the scale.

	Low approval.					High approval.
Scale:	1	2	3	4	5	6

5. On a scale from 1-6, to what extent do you approve of yourself using heroin; where 1 = the lowest level of approval and 6 = the highest level of approval? Please circle the number which best indicates your response on the scale.

	Low approval.					High approval.
Scale:	1	2	3	4	5	6

6. On a scale from 1-6, to what extent do you approve of yourself using marijuana; where 1 = the lowest level of approval and 6 = the highest level of approval? Please circle the number which best indicates your response on the scale.

	Low approval.				High approval.
Scale:	1	2	3	4	5	6

B. Perceptions of Drugs:

7. To what extent do you think amphetamines are dangerous to one's health? Please circle the number in front of the choice you select.

1 Not dangerous at all.
2 Not very dangerous.
3 Fairly dangerous.
4 Extremely dangerous.

8. To what extent do you think heroin is dangerous to one's health? Please circle the number in front of the choice you select.

1 Not dangerous at all.
2 Not very dangerous.
3 Fairly dangerous.
4 Extremely dangerous.

9. To what extent do you think marijuana is dangerous to one's health? Please circle the number in front of the choice you select.

1 Not dangerous at all.
2 Not very dangerous.
3 Fairly dangerous.
4 Extremely dangerous.

10. To what extent do you think the use of amphetamines is a serious problem in your community? Please circle the number in front of the choice you select.

1 Not serious at all.
2 Not very serious.
3 Fairly serious.
4 Extremely serious.

11. To what extent do you think the use of heroin is a serious problem in your community? Please circle the number in front of the choice you select.

1 Not serious at all.
2 Not very serious.
3 Fairly serious.
4 Extremely serious.

12. To what extent do you think the use of marijuana is a serious problem in your community? Please circle the number in front of the choice you select.

1 Not serious at all.
2 Not very serious.
3 Fairly serious.
4 Extremely serious.

13. To what extent do you think public anti-drug messages are effective in preventing you from using illegal drugs? Please circle the number in front of the choice you select.

1 Not effective at all.
2 Not very effective.
3 Fairly effective.
4 Extremely effective.

14. To what extent do you think the government's anti-drug programs are effective in preventing youth from using illegal drugs? Please circle the number in front of the choice you select.

1 Not effective at all. 3 Fairly effective.
2 Not very effective. 4 Extremely effective.

15. How addictive do you believe amphetamines to be? Please circle the number in front of the choice you select.

1 Not addictive at all. 3 Fairly addictive.
2 Not very addictive. 4 Extremely addictive.

16. How addictive do you believe heroin to be? Please circle the number in front of the choice you select.

1 Not addictive at all. 3 Fairly addictive.
2 Not very addictive. 4 Extremely addictive.

17. How addictive do you believe marijuana to be? Please circle the number in front of the choice you select.

1 Not addictive at all. 3 Fairly addictive.
2 Not very addictive. 4 Extremely addictive.

18. How easy is it for you to obtain amphetamines? Please circle the number in front of the choice you select.

1 Very easy. 2 Easy. 3 Difficult. 4 Very difficult.

19. How easy is it for you to obtain heroin? Please circle the number in front of the choice you select.

1 Very easy. 2 Easy. 3 Difficult. 4 Very difficult.

20. How easy is it for you to obtain marijuana? Please circle the number in front of the choice you select.

1 Very easy. 2 Easy. 3 Difficult. 4 Very difficult.

21. In your opinion, what chance does someone addicted to amphetamines have of making a full recovery? Please circle the number in front of the choice you select.

1 Very low. 2 Low. 3 Good. 4 Very good.

22. In your opinion, what chance does someone addicted to heroin have of making a full recovery? Please circle the number in front of the choice you select.

1 Very low. 2 Low. 3 Good. 4 Very good.

23. In your opinion, what chance does someone addicted to marijuana have of making a full recovery? Please circle the number in front of the choice you select.

1 Very low. 2 Low. 3 Good. 4 Very good.

24. How severe do you think a person who uses amphetamines should be punished? Please circle the number in front of the choice you select.

1 No punishment at all. 3 Fairly severe.
2 Not very severe. 4 Extremely severe.

25. How severe do you think a person who uses heroin should be punished? Please circle the number in front of the choice you select.

1 No punishment at all. 3 Fairly severe.
2 Not very severe. 4 Extremely severe.

26. How severe do you think a person who uses marijuana should be punished? Please circle the number in front of the choice you select.

1 No punishment at all. 3 Fairly severe.
2 Not very severe. 4 Extremely severe.

27. To what extent do you think that the use of amphetamines should be legalized? Please circle the number in front of the choice you select.

1 Strongly disagree. 3 Agree.
2 Disagree. 4 Strongly agree.

28. To what extent do you think that the use of heroin should be legalized? Please circle the number in front of the choice you select.

1 Strongly disagree. 3 Agree.
2 Disagree. 4 Strongly agree.

29. To what extent do you think that the use of marijuana should be legalized? Please circle the number in front of the choice you select.

1 Strongly disagree. 3 Agree.
2 Disagree. 4 Strongly agree.

C. Individual Data:

30. What is your gender? Please circle the number in front of the choice you select.

1 Male. 2 Female.

31. What is your age? Please write down your age on the line.

_____ years old.

32. Do you live in a low or high crime community? Please circle the number in front of the choice you select.

1 Very low. 2 Low. 3 High. 4 Very High.

33. What ethnic group do you belong to? Please circle the number in front of the choice you select.

1 Native Taiwanese. 2 Min-Nan. 3 Hakka.
4 Mainlander. 5 Other.

34. What is your religious affiliation? Please circle the number in front of the choice you select.

1 Buddhism. 2 Yiguandao. 3 Taoism.
4 Folk belief. 5 Christian (except Catholic)
6 Catholic. 7 No religious affiliation.
8 Other religious affiliation.

D. Family Data:

35. Which parent(s) are you living with? Please circle the number in front of the choice you select.

1 Neither Parent. 2 Only father. 3 Only mother.
4 Both parents.

36. What is your father's religious affiliation? Please circle the number in front of the choice you select.

1 Buddhism. 2 Yiguandao. 3 Taoism.
4 Folk belief. 5 Christian (except Catholic)
6 Catholic. 7 No religious affiliation.
8 Other religious affiliation.

37. What is your mother's religious affiliation? Please circle the number in front of the choice you select.

1 Buddhism. 2 Yiguandao. 3 Taoism.
4 Folk belief. 5 Christian (except Catholic)
6 Catholic. 7 No religious affiliation.
8 Other religious affiliation.

38. What is your weekly allowance? Please write down the dollar amount on the line.

_____ New Taiwan Dollars.

39. What is the monthly income of your family? Please write down the dollar amount on the line.

_____ New Taiwan Dollars.

40. What is your father's educational attainment? Please circle the number in front of the choice you select.

1 None. 2 Elementary School. 3 Junior High School.
4 Senior High School. 5 College or above.

41. What is your mother's educational attainment? Please circle the number in front of the choice you select.

1 None. 2 Elementary School. 3 Junior High School.
4 Senior High School. 5 College or above.

42. Do any of your relatives use illegal drugs? Please circle the number in front of the choice you select.
1 No. 2 Yes.

E. School/Peer Variables:

43. What is your grade level in school? Please circle the number in front of the choice you select.
1 First Grade. 2 Second Grade. 3 Third Grade.

44. How would you rate your academic achievement? Please circle the number in front of the choice you select.
1 Poor. 2 Fair. 3 Good. 4 Excellent.

45. How often do you interact with your major teacher? Please circle the number in front of the choice you select.
1 Little or none. 3 Often.
2 Some but not often. 4 Very often.

46. Do any of your classmates use illegal drugs? Please circle the number in front of the choice you select.
1 No. 2 Yes.

47. Do any of your friends use illegal drugs? Please circle the number in front of the choice you select.
1 No. 2 Yes.

48. Do any of your classmates invite you to use illegal drugs? Please circle the number in front of the choice you select.
1 No. 2 Yes.

49. Do any of your friends invite you to use illegal drugs? Please circle the number in front of the choice you select.
1 No. 2 Yes.

50. Have you ever thought to use illegal drugs ?
1 No. 2 Yes.

51. Have you ever used <u>amphetamines</u>?
1 No. 2 Yes.

52. Have you ever used <u>heroin</u>?
1 No. 2 Yes.

53. Have you ever used <u>marijuana</u>?
1 No. 2 Yes.

APPENDIX B

SUMMARY OF JUNIOR HIGH SCHOOLS IN TAIPEI CITY, 1995-96

Table B.1 Summary of Junior High Schools in Taipei City, 1995-96

Number and Type of Schools N=85	Number of Classes	Number of Students
Grand Total	3,527	131,678
National (1)	21	804
Municipal (69)	3,335	123,043
Private (15)	171	7,831
Municipal # 1	69	2,926
Municipal # 2	51	1,540
Municipal # 3	39	1,422
Municipal # 4	44	1,645
Municipal # 5	72	3,047
Municipal # 6	19	574
Municipal # 7	41	1,497
Municipal # 8	63	2,576
Municipal # 9	45	1,746
Municipal # 10	76	2,889
Municipal # 11	26	1,015
Municipal # 12	95	3,615
Municipal # 13	74	3,049
Municipal # 14	30	784
Municipal # 15	96	3,616
Municipal # 16	47	1,343
Municipal # 17	39	1,076
Municipal # 18	21	688
Municipal # 19	50	1,867
Municipal # 20	53	2,015
Municipal # 21	42	1,547
Municipal # 22	33	1,005
Municipal # 23	40	1,052
Municipal # 24	31	900
Municipal # 25	34	1,141
Municipal # 26	72	2,897
Municipal # 27	49	1,958
Municipal # 28	69	3,115
Municipal # 29	39	1,310
Municipal # 30	51	1,763

(table cont.)

Number and Type of Schools N=85	Number of Classes	Number of Students
Municipal # 31	61	2,587
Municipal # 32	41	1,597
Municipal # 33	36	955
Municipal # 34	49	1,999
Municipal # 35	24	956
Municipal # 36	80	3,348
Municipal # 37	43	1,021
Municipal # 38	45	1,410
Municipal # 39	60	1,726
Municipal # 40	30	1,149
Municipal # 41	51	1,633
Municipal # 42	6	155
Municipal # 43	43	1,447
Municipal # 44	18	441
Municipal # 45	54	1,996
Municipal # 46	60	2,550
Municipal # 47	66	2,702
Municipal # 48	59	1,950
Municipal # 49	33	1,088
Municipal # 50	43	1,565
Municipal # 51	60	2,491
Municipal # 52	45	1,687
Municipal # 53	42	1,451
Municipal # 54	47	1,926
Municipal # 55	54	2,271
Municipal # 56	36	1,165
Municipal # 57	79	3,412
Municipal # 58	71	2,437
Municipal # 59	10	235
Municipal # 60	13	314
Municipal # 61	30	918
Municipal # 62	48	1,767
Municipal # 63	60	2,488
Municipal # 64	66	2,444
Municipal # 65	54	1,912
Municipal # 66	81	3,350
Municipal # 67	24	709
Municipal # 68	82	3,434
Municipal # 69	21	739
Private # 70	21	1,037

(table cont.)

Number and Type of Schools N=85		Number of Classes	Number of Students
Private	# 71	5	180
Private	# 72	12	364
Private	# 73	6	309
Private	# 74	15	714
Private	# 75	20	1,023
Private	# 76	10	508
Private	# 77	9	458
Private	# 78	12	583
Private	# 79	6	181
Private	# 80	14	600
Private	# 81	2	67
Private	# 82	21	1,044
Private	# 83	12	606
Private	# 84	6	157
National	# 85	21	804

Sources: Bureau of Education, Taipei Municipal Government (September 1, 1995)

APPENDIX C

PERCENTAGE DISTRIBUTION OF DATA

Table C.1 Percentage Distribution of Students' Grade Level in Junior High School, Age, and Gender

	Grade Level		
	First Grade	Second Grade	Third Grade
N = 604	33	37	30

	Age				
	Less than 12	12	13	14	15 and Older
	.3	12	30	42	16
Mean = 13.62 N = 604					

	Gender	
	Male	Female
	53	47
Mean = 1.47 N = 604		

Table C.2 Percentage Distribution of Students' Ethnic Group

	Ethnic Group				
	Native Taiwanese	Min-Nan	Hakka	Main-lander	Other
N = 604	6	52	8	24	10

Table C.3 Percentage Distribution of Students' Academic Achievement

	Academic Achievement			
	Poor 1	2	3	Good 4
	26	57	16	2

Mean = 1.94
N = 604

Table C.4 Percentage Distribution of Students' Interaction with Major Teachers

	Interaction with Major Teacher			
	Little 1	2	3	Often 4
	14	75	11	1

Mean = 1.98
N = 603

Table C.5 Percentage Distribution of Students' Living Arrangements

	Student Lives with			
	Neither Parent	Only Father	Only Mother	Both Parents
N = 604	1	6	7	86

Table C.6 Percentage Distribution of Mothers' Religious Affiliation

Religious Affiliation	Percentage
Buddhist	64
Yiguandao	1
Taoist	7
Folk Belief	3
Christian (except Catholic)	6
Catholic	2
No Religious Affiliation	16
Other Religious Affiliation	2

N = 604

Table C.7 Percentage Distribution of Fathers' Educational Attainment

	Educational Attainment				
	None	Element-ary School	Junior High School	Senior High School	College or Above
Father	0.3	16	15	32	37

N = 603

Table C.8 Percentage Distribution of Students' Degree of Social Tolerance for Use of Drugs by Their Friends

Drugs	Degree of Social Tolerance					
	Low 1	2	3	4	5	High 6
Amphetamines	62	21	12	3	2	1
Mean = 1.65 N = 604						
Heroin	64	20	11	3	1	1
Mean = 1.61 N = 604	Missing = 1					
Marijuana	62	22	11	3	2	1
Mean = 1.63 N = 604						

Table C.9 Percentage Distribution of Students' Degree of Social Tolerance for Use of Drugs by Themselves

Drugs	Degree of Social Tolerance					
	Low 1	2	3	4	5	High 6
Amphetamines	91	6	2	1	0	1
Mean = 1.15 N = 604						
Heroin	92	5	2	1	.3	1
Mean = 1.14 N = 604	Missing = 1					
Marijuana	91	6	2	1	.2	1
Mean = 1.15 N = 604						

Table C.10 Percentage Distribution of Students' Perceptions of Attitude toward Legalization of the Use of Drugs

Drugs	Favor Legalization			
	Low 1	2	3	High 4
Amphetamines	77	18	4	1
Mean = 1.30 N = 604				
Heroin	80	17	3	1
Mean = 1.26 N = 604				
Marijuana	74	20	5	1
Mean = 1.34 N = 604				

VITA

The author, San-Yi Li, was born on October 10, 1963, in Luchou, Taipei Hsien (Parish), Taiwan, R.O.C. He passed the 1982 University Entrance Examination and entered the Department of Sociology at Fu Jen Catholic University, Hsinchuang, Taiwan, R.O.C., in the Fall of 1982. He earned a Bachelor of Law in Sociology from Fu Jen University in the Spring of 1986. He completed two years military service in the middle of 1988 and went back to the Sociology Department at Fu Jen University as a full-time teaching and research assistant until he went to the United States for graduate study in Sociology at the end of 1989.

He began his graduate study at Western Kentucky University, Bowling Green, Kentucky, U.S.A., in January 1990 and obtained the Master of Arts in Sociology in December 1991. He stayed one semester at the Department of Sociology at the University of Tennessee, Knoxville, Tennessee, U.S.A., to begin his Ph.D. program in the Spring of 1992, and transferred to the Department of Sociology at Louisiana State University, Baton Rouge, Louisiana, U.S.A., in the Fall of 1992. He is currently completing his doctoral studies in Sociology at Louisiana State University.

DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: San-Yi Li

Major Field: Sociology

Title of Dissertation: Social Tolerance for Drug Use Among Junior High School Students in Taipei, Taiwan

Approved:

Thomas J. Durant Jr.
Major Professor and Chairman

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EXAMINING COMMITTEE:

Date of Examination:

March 27, 1996